15-16501

IN THE UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

TRACY RIFLE AND PISTOL LLC; MICHAEL BARYLA; TEN PERCENT FIREARMS; WESLEY MORRIS; SACRAMENTO BLACK RIFLE, INC.; ROBERT ADAMS; PRK ARMS, INC.; JEFFREY MULLEN; IMBERT & SMITHERS, INC.; and ALEX ROLSKY,

Plaintiffs-Appellants,

v.

KAMALA D. HARRIS, in her official capacity as Attorney General of California; and STEPHEN J. LINDLEY, in his official capacity as Chief of the California Department of Justice Bureau of Firearms,

Defendants-Appellees.

On Appeal from the United States District Court
for the Eastern District of California

No. 2:14-cv-02626-TLN-DAD
The Honorable Troy L. Nunley, Judge

APPELLEES' SUPPLEMENTAL EXCERPTS OF RECORD

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In accordance with Circuit Rule 30-1.7, Appellees Kamala D. Harris, in her official capacity as Attorney General of California, and Stephen J. Lindley, in his official capacity as the Chief of the California Department of Justice Bureau of Firearms, submit this supplemental excerpts of record.

Dated: September 21, 2015 Respectfully submitted,

KAMALA D. HARRIS
Attorney General of California
DOUGLAS J. WOODS
Senior Assistant Attorney General
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s/ Nelson Richards
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IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF CALIFORNIA

TRACY RIFLE AND PISTOL LLC; MICHAEL BARYLA; TEN PERCENT FIREARMS; WESLEY MORRIS; SACRAMENTO BLACK RIFLE, INC.; ROBERT ADAMS; PRK ARMS, INC.; and JEFFREY MULLEN,

Plaintiffs,

v.

KAMALA D. HARRIS, in her official capacity as Attorney General of California; and STEPHEN J. LINDLEY, in his official capacity as Chief of the California Department of Justice Bureau of Firearms,

Defendants.

2:14-cv-02626-TLN-DAD

DECLARATION OF NELSON R. RICHARDS IN SUPPORT OF DEFENDANTS' OPPOSITION TO PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

Date: March 12, 2015
Time: 2:00 p.m.
Judge: Hon. Troy L. Nunley
Action Filed: Nov. 10, 2014

SER 1

I, NELSON R. RICHARDS, declare:

1. I am a Deputy Attorney General with the California Department of Justice, Office of the Attorney General, and an attorney for Defendants Kamala D. Harris, in her official capacity as Attorney General of California, and Stephen J. Lindley, in his official capacity as Chief of the California Department of Justice Bureau of Firearms (collectively, "Defendants") in this matter. I am an attorney at law duly licensed to practice before all courts of the State of California and admitted to practice before the United States District Court for the Eastern District of California. I have personal knowledge of the facts set forth below and if called as a witness, I could and would competently testify to them.

2. This declaration is made in support of Defendants' Opposition to Plaintiffs' Motion for Preliminary Injunction.

3. Exhibit 1 is a true and correct copy of California's 1917 Firearms law, 1917 Cal. Stat. ch. 145. I obtained a copy of the law from the print source.

4. Exhibit 2 is a true and correct copy of the *Proceedings of the Thirty-Fourth Annual Meeting of the National Conference of Commissioners on Uniform State Laws*, 47 Ann. Rep. A.B.A. 522 (1924). I obtained a copy of this publication from the HeinOnline archive service.

5. Exhibit 3 is a true and correct copy of the *Handbook of the National Conference of Commissioners on Uniform State Laws* 728-32 (1924). I obtained a copy of this publication from the print source.

6. Exhibit 4 is a true and correct copy of California's 1923 Firearms law, 1923 Cal. Stat. ch. 339. I obtained a copy of the law from the print source.

7. Exhibit 5 is a true and correct copy of Charles V. Imlay, *The Uniform Firearms Act*, 12 A.B.A. J. 767, 767 (1926). I obtained a copy of this publication from the HeinOnline archive service.

8. Exhibit 6 is a true and correct copy of *New Firearms Law Effective on August 7*, S.F. Chron., July 15, 1923. I obtained a copy of the article from San Francisco Chronicle microfilm in the archive of the California State Library.

9. Exhibit 7 is a true and correct copy of the Washington D.C.'s 1922 firearms law, S. 4012, 67th Cong. (1922). I obtained a copy of this publication from the print version of the congressional record.

10. Exhibit 8 is a true and correct copy of the Committee on Law Enforcement's *For a Better Enforcement of the Law*, 8 A.B.A. J. 588 (1922). I obtained a copy of this publication from the HeinOnline archive service.

11. Exhibit 9 is a true and correct copy of the 1929 *Report of the California Crime Commission*. I obtained a copy of this publication from the print version.

12. Exhibit 10 is a true and correct copy of the Report of the Standing Committee on Uniform State Laws, Report of the Forty-Ninth Annual Meeting of the American Bar Association (1926). I obtained a copy of this publication from the print version.

13. Exhibit 11 is a true and correct copy of Kamala D. Harris, Attorney General, *Homicide in California, 2013* (2013). The document is available on the Attorney General's website at: http://oag.ca.gov/publications.

14. Exhibit 12 is a true and correct copy of Kamala D. Harris, Attorney General, *2013 Firearms Used in the Commission of Crimes* (2013). The document is available on the Attorney General's website at: http://oag.ca.gov/publications.

15. Exhibit 13 is a true and correct copy of Bureau of Justice Statistics, U.S. Department of Justice, *Firearm Violence, 1993-2011* (2013). The document is available on the U.S. Department of Justice's website at: http://www.bjs.gov/index.cfm?iid=4616&ty=pbdetail.

16. Exhibit 14 is a true and correct copy of printout from the California Department of Public Health's California Violent Death Reporting System reporting handgun suicides in California for the years 2005 through 2009. The document can be reproduced using the California Department of Public Health's website at: http://epicenter.cdph.ca.gov/.

17. Exhibit 15 is a true and correct copy of John Henry Sloan et al., *Handgun Regulations, Crime, Assaults, and Homicide: A Tale of Two Cities*, 318 New Eng. J. Med. 913 (1988). A copy is available for a fee on the New England Journal of Medicine's website at: http://www.nejm.org/doi/full/10.1056/NEJM198811103191905.

SER 3

18. Exhibit 16 is a true and correct copy of Michael Siegel et al., *The Relationship Between Gun Ownership and Firearm Homicide Rates in the United States, 1981-2010*, 103 Am. J. Pub. Health 2098 (2013). The publication is available for a fee on the American Journal of Public Health's website at: http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2013.301409.

19. Exhibit 17 is a true and correct copy of Peter Cummings et al., *The Association Between the Purchase of a Handgun and Homicide or Suicide*, 87 Am. J. Pub. Health 974 (1997). A free copy is available on the American Journal of Public Health's website at: http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.87.6.974.

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21. Exhibit 19 is a true and correct copy of K.M. Grassel et al., *Association Between Handgun Purchase and Mortality from Firearm Injury*, 9 Injury Prevention 48 (2003). A free copy is available on journal Injury Prevention's website at: http://injuryprevention.bmj.com/content/9/1/48.full.

22. Exhibit 20 is a true and correct copy of Mathew Miller & David Hemenway, *Guns and Suicide in the United States*, 359 New Eng. J. Med. 898 (2008). A free copy is available on the New England Journal of Medicine's website: http://www.nejm.org/doi/full/10.1056/NEJMp0805923.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: February 23, 2015

/s/ Nelson R. Richards
NELSON R. RICHARDS
Deputy Attorney General

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SER 4

EXHIBIT 2

PROCEEDINGS

OF THE

THIRTY-FOURTH ANNUAL MEETING

OF

The National Conference of Commissioners on Uniform State Laws

HELD AT

PHILADELPHIA, PENNSYLVANIA

July 1–8, 1924,

AND

INFORMATION CONCERNING THE CONFERENCE AND ITS WORK.

ORIGIN, NATURE AND SCOPE OF THE NATIONAL CONFERENCE OF COMMISSIONERS ON UNIFORM STATE LAWS.

The National Conference of Commissioners on Uniform State Laws is composed of Commissioners from each of the states, the District of Columbia, Alaska, Hawaii, Porto Rico and the Philippine Islands. In thirty-three of these jurisdictions the Commissioners are appointed by the chief executive acting under express legislative authority. In the other jurisdictions the appointments are made by general executive authority. There are usually three representatives from each jurisdiction. The term of appointment varies, but three years is the usual period. The Commissioners are chosen from the legal profession, being lawyers and judges of standing and experience, and teachers of law in some of the leading law schools. They serve without compensation, and in most instances pay their own expenses. They are united in a permanent organization, under a constitution and by-laws, and annually elect a president, a vice-president, a secretary, and a treasurer. The Commissioners meet in Annual Conference at the same place as the American Bar Association, usually for four or five days immediately preceding the meeting

18. Committee on Uniform Act to Regulate the Sale and Possession of Firearms.

This was a new committee appointed at the Annual Conference in Minneapolis last year, as a result of certain matters brought to the attention of the Conference by the United States Revolver Association. Those who have not considered this question, perhaps, would find difficulty in seeing the necessity for a Uniform Act upon the subject, but it is believed that one who looks into it will agree with the committee that:

> Study of this proposition shows the advisability of having a uniform law and one which if enforced will make it difficult for any person not a law-abiding citizen to obtain a pistol or revolver.

The necessity for uniformity arises from the fact that unless there are similar provisions the best thought out acts may be unavailing under the present state of the law and the committee makes a recommendation with reference to the continuation of its powers with a view to the presentation of a tentative draft at the Annual Conference in 1925. It is recommended that the committee be continued, that it be given a sufficient appropriation to hold a meeting and be requested to prepare and report a tentative draft for an act at the next Annual Conference.

19. Committee on Revision of By-Laws.

In view of the fact that the National Conference is in fact a continuing body with a permanent policy and its work goes on from year to year, it has seemed wise to make certain changes in the Constitution and By-Laws which recognize this fact and change certain provisions which assume reorganization at each meeting of the Annual Conference. It also seems desirable to adopt some new plan of committee organization in order to bring related work together in sections, secure full committee meetings and increase their effectiveness.

I have, therefore, appointed a committee on the Revision of Constitution and By-Laws consisting of the Hon. Jesse A. Miller, Chairman, Arthur H. Ryall, and George B. Young, which has prepared and will present certain amendments to this Conference which I hope may be given early consideration in order that, if they meet with the approval of this Conference, they may become effective at the present Annual Conference.

EXHIBIT 3

HANDBOOK

OF THE

National Conference of Commissioners

ON

Uniform State Laws

AND

Proceedings

OF THE

Thirty-fourth Annual Meeting

PHILADELPHIA, PENNSYLVANIA

July 1-8

1924

REPORT OF COMMITTEE ON A UNIFORM ACT TO REGULATE THE SALE AND POSSESSION OF FIREARMS.

To the National Conference of Commissioners on Uniform State Laws:

The undersigned committee was appointed at the meeting at Minneapolis in August, 1923, for the purpose of considering and reporting upon a Uniform Act to Regulate the Sale and Possession of Firearms. A study has been made by the committee of legislation as it exists in some of the principal states of the Union and exchanges of views have been had between the members of the committee in reference to the general subject matter of those laws. But owing to a lack of funds, the distance of the members of the committee from one another, and the shortness of time due to the earlier date of the meeting in Philadelphia, it has been impossible to have a session of the committee or to prepare a tentative draft of an act. This report is therefore for the purpose of presenting to the Conference in a general way the present state of the law as it has been ascertained by the committee and to make recommendations with reference to the continuance of the work, with a view to the preparation of a tentative act for presentation at the next meeting of the Conference in 1925.

Timeliness of Subject

The matter of the regulation of the sale and possession of firearms is a live subject. It was brought to the attention of the Conference last summer by the United States Revolver Association in the form of an Argument for a Uniform Revolver Law which is appended hereto, together with the text of such law.

It had just prior to the meeting of the Conference last summer been dealt with in California in one of the most recent acts upon this subject, known as Assembly Bill No. 263 of the State of California, approved June 13, 1923, the full text of which is appended hereto, in which the entire matter of the regulation and sale of "dangerous

weapons" is treated exhaustively. This act deals not only with firearms but with black-jacks, slung shots and other deadly weapons. It has seemed to the committee best to confine its activities to the range indicated in its title, and in the preparation of a Uniform Law to deal only with firearms.

The matter of the regulation of the sale and use of firearms is called to the attention of the public from time to time by notable fatalities that occur in the use of weapons both by officers and by citizens who are not officers. One of the most notorious illustrations of this was the recent accidental shooting of Senator Greene of Vermont on Pennsylvania Avenue in Washington within two blocks of the Nation's Capitol in a melée between officers and bootleggers. This immediately focused the attention not only of residents of the District of Columbia, but of people throughout the country upon proposed legislation on the subject by Congress for the District of Columbia as local legislation as well as their attention upon proposed legislation governing the sale of weapons in interstate commerce. There had already been introduced in Congress prior to the accident to Senator Greene several bills providing briefly for the regulation of the sale and use of firearms in the District of Columbia. These are appended hereto. Since the shooting of Senator Greene, enactment of legislation of this kind has been urged upon Congress, and the President of the United States has taken a personal interest in the matter. A committee of the House of Representatives of which Ernest W. Gibson is Chairman now has the matter under consideration, and Mr. Gibson has written a letter to the Chairman of this committee welcoming aid upon this subject.

One of the recent bills in Congress, Senate Bill No. 4012, introduced by Mr. Capper in the 67th Congress, September 20, 1922, was a bill to control the possession, sale and use of pistols and revolvers in the District of Columbia. This bill was practically the same as the uniform law proposed by the United States Revolver Association. House bill No. 461 introduced by Mr. Clark of Florida in the 68th Congress December 5, 1923, requires any person desiring to purchase a pistol, rifle, etc. to furnish the dealer a certificate from the Clerk of the court that such person

has never been convicted of any offense in said court, and also to furnish certificates from at least two citizens of the District that such person is of good character, law-abiding and peaceable. Section 2 provides a penalty for violation of Section 1. Several bills have been recently introduced to control the shipment of firearms in interstate commerce.

United States Revolver Association's Proposed Uniform Law

The uniform law proposed by the United States Revolver Association and appended hereto may be taken as a starting point in drafting a uniform law. But the proposed act lacks certain provisions found in other acts which might be added thereto, for example, a provision requiring a citizen desiring to purchase a pistol or revolver to secure a license or permit from the chief of police, sheriff or other officer, said license or permit to be the authority of the dealer in making a sale. Such a provision may seem drastic but certainly no law-abiding or reputable citizen with sufficient grounds for owning or possessing a weapon would hesitate to make application for the license. It would prohibit in a great measure, if not entirely prevent, the felon from obtaining a weapon.

The United States Revolver Association's proposed law, as well as many others, imposes practically no restriction on dealers other than a few conditions subsequent to the issuance of their license. Chief among these are: (a) Dealers are not permitted to display pistols or revolvers. (b) Records must be kept of each sale (but generally speaking no check is ever made of these records) (c) No pistol or revolver shall be delivered on the day of the sale, (and here again it is doubtful whether any check is ever made on deliveries). This situation could be and should be remedied and brought under control by some designated authority (1) by limiting the number of dealers (2) by a more careful selection of dealers (3) by requiring that every licensed dealer be compelled to give bond, and (4) by periodical inspection of stocks and registers. While it may seem that these provisions will place undue burdens and restrictions on the parties concerned yet if this vice is to be

remedied this committee feels that the laws in relation thereto must of necessity be drastic and all steps taken to insure their enforcement.

General Considerations in Drafting Uniform Law

A study of this proposition shows the advisability of having a uniform law and one which if enforced will make it difficult for any person not a law-abiding citizen to obtain a pistol or revolver. Too liberal a statute would be little better, even if uniform, than those now in force, while a law making it practically impossible to purchase a weapon would be objectionable for several reasons. First, because the criminal or felon would undoubtedly resort to illegal methods of obtaining a firearm, and secondly, the firearms business of this country, employing thousands of skilled mechanics and representing millions of dollars, would be sacrificed.

Great care should be exercised in the drafting of a provision concerning the carrying of concealed weapons. To quote from the United States Revolver Association's Argument; "Entirely convincing evidence of necessity should be required before such a permit is granted." Police and other officers and all persons engaged in carrying large sums of money, as bank and express messengers, should be permitted to carry weapons; but some system should be devised whereby these persons may be instructed in the use of firearms.

Acts prohibiting the carrying of concealed weapons are held constitutional and a valid and proper exercise of the police power. The provision of the second amendment to the constitution that, "the right of the people to keep and bear arms shall not be infringed," and similar constitutional provisions in the States do not preclude the exercise of this police power.

The possibility of enforcing such a law can hardly be doubted, when it is considered that a few cities and states have severe regulations governing the use of firearms and these few are able to enforce them so far as their own jurisdictions are concerned. The result, however, is nullified by the fact that firearms may be purchased in adjoining districts.

Recommendations of Committee

In view of the foregoing considerations, the committee recommends as follows:

1. That either this committee or another committee of this Conference be continued for the further consideration of a uniform act to regulate the sale and possession of firearms with instructions to prepare and report a tentative draft of a proposed uniform act at the next meeting of this conference.

2. That the committee be granted such an appropriation by the Conference, if possible, as may enable the members of the committee to meet ahead of the next meeting of the Conference for the purpose of making as complete a report as possible.

Charles V. Imlay, *Chairman*
Ashley Cockrill
Clarence A. Davis
E. B. Stewart
John Hinkley
George M. Hogan
William H. Leary

APPENDIX

THE ARGUMENT FOR A UNIFORM REVOLVER LAW

(Reprinted from pamphlet published by United States Revolver Association)

The increase in the number of crimes of violence, in which pistols and revolvers have figured, has led to a nation-wide demand for regulatory legislation relating to such weapons.

As a consequence, a veritable flood of legislative bills has appeared in various States and municipalities and even in the Congress of the United States. These bills range all the way from mild regulation to absolute prohibition of the manufacture, sale and ownership of pistols and revolvers.

Should even a few of these measures be enacted into laws, the result would be confusion and conflict of authority which would make effectice enforcement impossible and, far from improving conditions, would make them infinitely worse.

With a view to providing effective legislation which will minimize the use of pistols and revolvers by criminals, and at the same time permit law-abiding citizens to obtain such weapons for protection and other legitimate uses, under proper restrictions, the United States Revolver Association has prepared a Uniform Law and is recommending its enactment in all of the States.

This Uniform Law is based on the Capper Bill (S. 4012), which was introduced in the United States Senate by Senator Arthur Capper of Kansas and recently favorably reported by the Senate District of Columbia Committee.

What the Uniform Law Provides

Briefly, the Uniform Revolver Law provides that:

None but citizens, personally known, or properly identified to a licensed dealer in firearms, are permitted to purchase pistols or

revolvers. Each purchaser and seller must sign a record of sale, each in the presence of the other, and a copy of such record must be filed with the police.

No pistol or revolver may be delivered to the purchaser until the day after the sale.

Owners of such firearms are not permitted to carry them on their persons or in a vehicle without a license from the police.

Dealers are not permitted to display pistols or revolvers, or imitations thereof, where they can be seen from the outside of the store.

Possession of a pocket firearm by a person, committing or attemping to commit a felony, is regarded as prima facie evidence of criminal intent, and *is punishable by a mandatory sentence to five years extra imprisonment.*

Heavy penalties are prescribed for second and third offenders. Fourth offenders may be sentenced to life imprisonment.

Manufacturers' serial numbers or other identifying marks on pistols or revolvers must not be altered or erased.

Aliens, minors and persons who have been convicted of a felony are not permitted to possess a pistol or revolver.

Why Revolver Laws Should Be Uniform

Regulation of the sale and ownership of pistols and revolvers comes within the police powers of the various States and is not a matter with which Congress can properly deal.

To be effective, therefore, such regulation must be uniform in all States. Otherwise there will be a continuance of the anomalous conditions now prevailing in certain States. An example of this is found in the case of New York State where the sale of weapons of this character is strictly regulated. It is not a difficult matter, however, for a criminal to cross the Hudson River to New Jersey, or to go by train or automobile to Connecticut and meet his requirements in those States.

The adoption of the Uniform Law in all States would stop this practice. The sale of pistols and revolvers would be in the hands of

reputable, licensed dealers and the intending purchaser would either have to be personally known to them as a citizen of good character, or else properly identified before he could obtain a weapon. Moreover, even a reputable citizen could not obtain a weapon at a moment's notice. He would have to wait twenty-four hours after he placed his order before delivery could be made. This would provide a "cooling spell" designed to overcome any sudden tendency to violence and at the same time provide the dealer with an opportunity to "check up" on the purchaser.

Why Not a License to Purchase?

Any provision which would make it necessary for an intending purchaser of a pistol or revolver to obtain a license before he could make such a purchase, is objectionable for these reasons:

All reputable, law-abiding citizens should be permitted legally to acquire and keep for legitimate uses, the weapons best suited for self-protection against marauders. This need cannot be denied by anyone who has studied the current statistics of crime.

Experience has demonstrated that, in such States as at present require a license to purchase, the law plays directly into the hands of the criminal.

The criminal at present has no difficulty in obtaining such weapons as he desires. He knows that the average citizen will not take the trouble—and frequently, it is a great deal of trouble—to obtain the required purchase license. Therefore, the criminal knows that the chances are nearly all in his favor and that he can operate safe in the knowledge that his victim is unarmed and unable to defend himself.

Furthermore, the law-abiding householder can by no chance foresee the moment when he may need a pistol or revolver for the defense of his property or of his life and the lives of those dependent upon him.

For that reason alone, he should be encouraged to procure and learn the proper use of a pistol or revolver. It is generally known that during a comparatively recent series of burglaries and robberies

in New York City, the authorities suggested the advisability of citizens arming themselves, notwithstanding the fact that the New York State law—the notorious Sullivan Law, so-called—places unreasonably severe restrictions in the way of such action.

Why a License to Carry?

There are certain classes of citizens who, by the very nature of their calling, are required to carry pistols and revolvers. These include policemen, certain other peace officers and members of the military and naval service of the United States and of the various States.

All other citizens should be required to obtain licenses from proper authorities before they are permitted to carry a weapon of this character on their person or in vehicles. Entirely convincing evidence of nceessity should be required before such a permit is granted.

Severe penalties should attach to the unauthorized carrying of concealed weapons and to the use or possession of a pistol or revolver in the commission of a crime.

In other words, law-abiding citizens should be perfectly free to obtain and keep in their homes pistols or revolvers, but no persons other than those authorized by law, should be allowed to carry such weapons abroad without express permission granted after necessity has been shown.

Only in this way can the use of such weapons by criminals be minimized.

Why Not Prohibitory Laws?

Laws prohibiting the manufacture, sale or ownership of pistols and revolvers would work to the detriment not only of the law-abiding public but of the Government itself.

Furthermore, such laws would be utterly ineffective for the very simple reason that they could not be enforced against the criminal. Any police official, any criminologist or any person who has made the slightest study of the subject will confirm this statement.

It would be possible, of course, to prohibit the manufacture of weapons of this character. But a very effective pistol can be made at home out of a small-bore rifle. Furthermore, we have several thousand miles of border and seacoast over which weapons would drift for the use of criminals. There would be created by any prohibitory law, the highly undesirable industry of pistol bootlegging.

Any prohibitory law, therefore, would operate against the reputable citizen and entirely in favor of the criminal. The former would observe the law and the latter, with his clandestinely obtained pistol in his pocket, would be absolutely safe in the pursuit of his calling.

A law prohibiting the manufacture of pistols and revolvers, or even limiting manufacture to the types in use in the military and naval service, would operate to the detriment of the Government for this reason:

The Army, Navy and Marine Corps of the United States and the National Guard use revolvers and automatic pistols of .45 calibre. The Government itself has practically no facilities for manufacturing these weapons.

Consequently, the manufacturers who make these types voluntarily keep a portion of their plants ready at all times for Government service. As the demand for the Army and Navy types is practically negligible in time of peace, the expense of maintaining the necessary idle machinery is born by the portions of the plants producing what may be termed commercial and police weapons.

If the sale of these commercial and police weapons were prohibited, there would be no funds available for the upkeep of the plants needed to manufacture service weapons with the result that the Government would suffer.

The Government could not equip itself to produce the needed weapons for years to come, because an arms manufacturing plant is not the creation of a month or so and expert gunsmiths are developed only by years of training. The impracticability of attempting to create new plants was demonstrated during the war

and is the subject of comment in the report on "America's Munitions," by Assistant Secretary of War, Benedict Crowell.

To summarize, therefore, a prohibitory law would wipe out an industry representing an investment of approximately $1,000,000,000; it would throw out of employment several thousand men whose skill is the result of years of training and who could not be replaced in case of necessity; it would seriously affect the business of thousands of wholesale and retail dealers, with consequent commercial loss to their respective communities and loss in taxes to the Government; it would seriously cripple the Government in any perparedness program; it would put a premium on dishonesty and evasion.

Finally, it would utterly fail of its purpose, which would be primarily to keep weapons of this character out of the hands of criminals.

Why Not Rifles and Shotguns?

The pistol or revolver is the most convenient weapon for the protection of the home. It can be kept in a bureau or table drawer, instantly available when needed, but safe from inexperienced hands. The argument that because accidents have occurred through keeping a pistol or revolver in the house, such weapons should be barred, would hold good in connection with many extremely useful household utensils.

Serious and even fatal accidents have occurred because children have played with matches, razors, carving knives and various edged tools, and, while there are no statistics available, it is safe to assume that such accidents are at least as numerous as those caused by careless handling of pistols or revolvers. Such accidents, however, are not spectacular and rarely find their way into the newspapers, while every case of accidental shooting is printed under big headlines.

Moreover, the pistol or revolver is by all means the best weapon for use in close quarters. A rifle or a shotgun is next to useless in defense of the household. Such weapons are unwieldy at close quarters, are inconvenient to use, are less easily kept away from

children, and are much more apt to cause accidents through careless handling.

Pistols Not Cause of Crime

No one who has made even a superficial study of crime and criminals believes for a moment that the abolition of pistols and revolvers would abolish or even bring about a particularly marked decrease in crimes of violence.

The pistol is not an incentive to crime. From the earliest times crime has existed in one form or another and the weapon used in its commission has been incidental. Crimes of violence were done ages before firearms of any kind were invented and will continue long after newer and more efficient means have been perfected.

The point is that the use of any weapon in the commission of crime has led to the adoption of similar or better weapons as a protection against crime and this defensive warfare of the law-abiding against the lawless will always continue. Deprive the law-abiding citizen of his right to possess a pistol and you take away his best means of defense.

A Matter of Custom

Much has been said and printed lately about the small number of crimes of violence in which pistols or revolvers figure in England, as compared with the admittedly larger number in this country. There is a perfectly logical explanation.

In the first place the population of the British Isles is approximately 45,000,000, and only a very small percentage of this is foreign-born. The City of London, often called the most cosmopolitan city in the world, has a foreign-born population of only about 4 per cent.

Consequently, the vast majority of the people have for many generations been schooled to respect British laws and institutions. The British laws are clear and definite and, what is of particular importance, they are enforced to the letter.

The British criminal commits crimes of violence, many of them, but he does not as a rule use a pistol. Moreover, Great Britain was

founded long before the invention of firearms and British tradition is against the use of firearms.

Therefore, a British criminal using a pistol in the commission of crime well knows that that very fact will add greatly to his sentence and that his sentence will be carried out without any possibility of pardon or diminution.

On the other hand, our own is a comparatively new country. Firearms played a most important and necessary part in its founding and from its earliest days, the youth of our country has been trained in the use of such weapons.

Furthermore, we have here a population of approximately 110,000,000 people, a very large percentage of whom are foreign-born and with many of whom it has been a national custom to carry a weapon of some sort.

Still further, it is admitted that not only is there a definite lack of respect for law among certain of our people, but that many of our laws are faulty and that our enforcement of law is extremely lax and our prosecution of criminals attended by delays which frequently render conviction impossible.

Under these conditions, it would seem better for us, before comparing ourselves with other countries, to remedy the faults which admittedly exist in our laws and their enforcement, to minimize the legal delays and to frame such laws as are capable of enforcement and in such manner that enforcement must of necessity follow infraction.

Why the U. S. R. A. is Interested

The United States Revolver Association is interested in the enactment of the Uniform Revolver Law in all of the States because its members realize the necessity for some form of regulation. They know that no regulation can be effective unless it is uniform in each State.

The Association which was formed about twenty-two years ago, is composed of about 3,000 members, organized into separate clubs, located in practically all States, as well as the Canal Zone, the District of Columbia and the outlying territories.

It develops and trains pistol marksmen entirely at the expense of its own members, holds frequent national championship matches and selects the teams to compete in international matches.

During the war many members of the Association were commissioned by the Government as instructors in revolver and pistol practice, thus relieving for other important work officers of the Army and Navy who otherwise would have been compelled to give this vitally necessary instruction.

The Association has made a careful study of the various laws dealing with pistols and revolvers, both in this and other countries. This study has led to the framing of the Uniform Revolver Law and to the Association's present effort to have this law enacted.

In this work the Association has received the suggestions and endorsements of the leading police officials and criminologists of the United States—men who have no delusions regarding the impracticability of laws which would prohibit pistols and revolvers—as well as of officers of the Army, Navy, Marine Corps, National Guard and various veterans' organizations.

The Association feels, therefore, that in undertaking the work of securing the general enactment of the Uniform Law, it is performing a duty well within the scope of its activities and for which it is probably best qualified.

But, aside from preserving the sport of target practice, the Association's sole interest lies in the satisfaction of having accomplished a piece of work which it is admitted by the police and other authorities, will be of inestimable benefit to the Nation.

OPINIONS OF POLICE OFFICIALS

CITY OF NEW YORK

If a similar law were enacted in all states, the danger of criminals obtaining pistols would be reduced to a minimum.

JOHN J. CRAY,
Fourth Deputy Commissioner.

POLICE DEPARTMENT, CITY OF N. Y.

The bill as drafted has many good features. I am in favor of a law which will apply to all States.

DOMINICK HENRY,
Acting Deputy Chief Inspector.

HOT SPRINGS, ARK.

I shall be only too glad to do everything possible, should such a bill be drawn in the State of Arkansas, to lend my efforts to see that it is passed.

R. O. SULLIVAN,
Chief of Police.

PINKERTON'S NATIONAL DETECTIVE AGENCY

We are quite certain Mr. Pinkerton is in favor of all reasonable legislation that has for its object the proper and reasonable control of firearms.

GEORGE D. BANGS,
General Manager.

FOSTER N. BURNS DETECTIVE AGENCY

I have always advocated a very strict law in reference to the carrying of firearms. If there is anything that I can do to be of service, command me.

FOSTER N. BURNS,
General Manager.

WINSTON-SALEM, N. C.

In my opinion without this law being standardized and applying to every State it will be difficult and almost impossible to keep revolvers out of the possession of the criminal class.

J. A. THOMAS,
Chief of Police.

PITTSFIELD, MASS.

It is an excellent bill. You are doing a real service to your country.

JOHN L. SULLIVAN,
Chief of Police.

BRIDGEPORT, CONN.

The making of this bill is a wonderful achievement; every provision is so framed that the inevitable result will be a decrease in crime.

PATRICK J. FLANAGAN,
Superintendent of Police.

FORT WAYNE, IND.

I heartily endorse such legislation. The bill would be a good law for all the States and by all means should be uniform throughout the whole United States.

WILLIAM H. MOELLER,
Chief of Police.

BALTIMORE, MD.

I have read the bill very carefully and I have no hesitancy in giving it my hearty endorsement, as I believe it is a very good bill and designed to accomplish the purpose which is sought. A measure of this sort should, in my opinion, be made universal.

GEORGE G. HENRY,
Chief Inspector.

WATERBURY, CONN.

I am strongly in favor of a bill of this nature and think that every State should adopt it. On one or two occasions, chiefs of police of this State have been before our legislature in an effort to have a bill passed controlling the sale of revolvers. We shall make a special effort through representatives from this city to get a bill passed by our next legislature along the same lines as the one you have sent.

GEORGE M. BEACH,
Superintendent.

OGONTZ, PA.

If a bill of this kind were introduced at the next session of the legislature of Pennsylvania, I would surely use my influence to have it passed.

THEODORE H. HALLOWELL,
Chief of Police.

NEW KENSINGTON, PA.

Should be a national law. It would reduce felonies 70 per cent.

DAN J. ZELOYLE,
Chief of Police.

DEPT. OF STATE POLICE, HARRISBURG, PA.

I have read the bill carefully and think it is excellent. It meets with many of the ideas which I have had for a long time. It will give me great pleasure to aid in getting such a bill enacted in Pennsylvania.

LYNN G. ADAMS,
Superintendent.

WALTHAM, MASS.

I am heartily in favor of a uniform law for all the States. Unless we can have a uniform law certain sections of our present law are useless.

JAMES H. McKENNA,
Chief of Police.

CITY OF HIGHLAND PARK, MICH.

I have gone over this bill and think if it could be passed in every State it would be a grand law. I have no doubt that it would cut down the taking of lives to a very great extent.

CHARLES W. SEYMOUR,
Chief of Police.

LEHIGH & NEW ENGLAND RAILWAY COMPANY

I am very much opposed to the indiscriminate carrying of fire-arms. However, I do believe that respectable citizens should be able to procure firearms for the protection of life and property.

GEORGE L. SMITH,
Chief Special Agent.

KNOXVILLE, TENN.

If this law could be passed to cover all States it would be most welcome to the peace officers of the country.

E. M. HAYNES,
Chief of Police.

A BILL TO PROVIDE FOR UNIFORM REGULATION OF REVOLVER SALES

(Published by United States Revolver Association)

Based upon Senate Bill 4012 Introduced in the U. S. Senate September 20, 1922

A Bill

To control the possession, sale, and use of pistols and revolvers, to provide penalties, and for other purposes.

Be it enacted, etc.

SECTION 1. DEFINITION.—"Pistol or revolver," as used in this Act, shall be construed as meaning any firearm with barrel less than twelve inches in length.

SEC. 2. COMMITTING CRIME WHEN ARMED.—If any person shall commit or attempt to commit a crime when armed with a pistol or revolver, and having no permit to carry the same, he shall in addition to the punishment provided for the crime, be punished by imprisonment for not less than five nor more than ten years.

SEC. 3. PUNISHMENT.—The judge shall have the power to sentence any person who may be convicted for a second or third offense under Section 2, of this Act, to double and triple the penalty imposed thereby, and for a fourth offense the person so convicted may be sentenced to perpetual imprisonment.

SEC. 4.—BEING ARMED PRIMA FACIE EVIDENCE OF INTENTION.—In the trial of a person for the commission of a felony or of an attempt to commit a felony against the person of another, the fact that he was armed with a pistol or revolver and having no permit to carry the same shall be prima facie evidence of his intention to commit said felony.

SEC. 5. ALIENS AND CRIMINALS MUST NOT POSSESS ARMS.—No unnaturalized foreign-born person and no person who has

been convicted of a felony against the person or property of another or against the Government of the United States or of any State or subdivision thereof, shall own or have in his possession or under his control, a pistol or revolver. Violations of this section shall be punished by imprisonment for not less than five years.

SEC. 6. CARRYING PISTOL CONCEALED.—No person shall carry a pistol or revolver concealed in any vehicle or upon his person, except in his dwelling house or place of business, without a license therefor as hereinafter provided. Violations of this section shall be punished by imprisonment for not less than one year, and upon conviction the pistol or revolver shall be confiscated and destroyed.

SEC. 7. EXCEPTIONS.—The provisions of the preceding section shall not apply to marshals, sheriffs, policemen, or other duly appointed peace officers, nor to the regular and ordinary transportation of pistols or revolvers as merchandise, nor to members of the Army, Navy, or Marine Corps of the United States, or the National Guard, when on duty, or organizations by law authorized to purchase or receive such weapons from the United States, or this State, nor to duly authorized military or civil organizations when parading, nor to the members thereof when at or going to or from their customary places of assembly.

SEC. 8. ISSUE OF LICENSES TO CARRY.—The justice of a court of record, the chief of police of a city or town and the sheriff of a county, or persons authorized by any of them, shall, upon the application of any person having a bona fide residence or place of business within the jurisdiction of said licensing authority, or of any person having a bona fide residence or place of business within the United States and a license to carry a firearm concealed upon his person issued by the authorities of any State or subdivision of the United States, issue a license to such person to carry a pistol or revolver within this State for not more than one year from date of issue, if it appears that the applicant has good reason to fear an injury to his person or property or for any other proper purpose, and that he is a suitable person to be so licensed. The license shall be in triplicate, in form to be prescribed by the Secretary of State,

and shall bear the name, address, description, and signature of the licensee and the reason given for desiring a license. The original thereof shall be delivered to the licensee, the duplicate shall within seven days be sent by registered mail to the Secretary of State, and the triplicate shall be preserved for six years by the authority issuing said license.

SEC. 9. SELLING TO MINORS.—Any person or persons who shall sell, barter, hire, lend, or give to any minor under the age of eighteen years any pistol or revolver shall be deemed guilty of a misdemeanor, and shall upon conviction thereof be fined not less than $100. nor more than $1,000, or be imprisoned for not less than three months, nor more than one year, or both.

SEC. 10. SALES REGULATED.—No person shall sell, deliver, or otherwise transfer a pistol or revolver to a person who he has reasonable cause to believe either is an unnaturalized foreign-born person or has been convicted of a felony against the person or property of another, or against the Government of the United States or any State or subdivision thereof, nor in any event shall he deliver a pistol or revolver on the day of the application for the purchase thereof, and when delivered, said pistol or revolver shall be securely wrapped and shall be unloaded. Before a delivery be made the purchaser shall sign in triplicate and deliver to the seller a statement containing his full name, address, occupation, and nationality, the date of sale, the caliber, make, model, and manufacturer's number of the weapon. The seller shall, within seven days, sign and forward by registered mail one copy thereof to the Secretary of State, and one copy thereof to the chief of police of the city or town or the sheriff of the county of which the seller is a resident, and shall retain the other copy for six years. This section shall not apply to sales at wholesale. Where neither party to the transaction holds a dealer's license, no person shall sell or otherwise transfer a pistol or revolver to any person not personally known to him. Violations of this section shall be punished by a fine of not less than $100 or by imprisonment for not less than one year, or by both such fine and imprisonment.

SEC. 11. DEALERS TO BE LICENSED.—Whoever, without being licensed as hereinafter provided, sells, or otherwise transfers, advertises, or exposes for sale, or transfer or has in his possession with intent to sell, or otherwise transfer, pistols or revolvers, shall be punished by imprisonment for not less than two years.

SEC. 12. DEALERS' LICENSES; BY WHOM GRANTED, AND CONDITIONS THEREOF.—The duly constituted licensing authorities of any city, town or political subdivision of this State, may grant licenses in form prescribed by the Secretary of State, effective for not more than one year from date of issue, permitting the licensee to sell at retail within the said city or town or political subdivision, pistols and revolvers, subject to the following conditions, for breach of any of which the license shall be subject to forfeiture:

1. The business shall be carried on only in the building designated in the license.

2. The license or a copy thereof, certified by the issuing authority, shall be displayed on the premises where it can easily be read.

3. No pistol or revolver shall be delivered—

(a) On the day of the application for the purchase, and when delivered shall be unloaded and securely wrapped; nor

(b) Unless the purchaser either is personally known to the seller or shall present clear evidence of his identity; nor

(c) If the seller has reasonable cause to believe that the purchaser either is an unnaturalized foreign born person or has been convicted of a felony against the person or property of another, or against the Government of the United States or any State or subdivision thereof.

4. A true record, in triplicate, shall be made of every pistol or revolver sold, said record to be made in a book kept for the purpose, the form of which may be prescribed by the Secretary of State, and shall be personally signed by the purchaser and by the person effecting the sale, each in the presence of the other, and shall include the date of sale, the caliber, make, model, and manufacturer's number of the weapon, the name, address, occu-

pation, and nationality of the purchaser. One copy of said record shall, within seven days, be forwarded by registered mail to the Secretary of State and one copy thereof to the chief of police of the city or town or the sheriff of the county of which the seller is a resident, and the other copy retained for six years.

5. No pistol or revolver, or imitation thereof, or placard advertising the sale or other transfer thereof, shall be displayed in any part of said premises where it can readily be seen from the outside.

SEC. 13. PENALTY FOR FALSE INFORMATION.—If any person in purchasing or otherwise securing delivery of a pistol or revolver or in applying for a permit to carry the same, shall give false information or offer false evidence of his identity he shall be punished by imprisonment for not less than five nor more than ten years.

SEC. 14. ALTERATION OF IDENTIFYING MARKS PROHIBITED.—No person shall change, alter, remove, or obliterate the name of the maker, model, manufacturer's number, or other mark of identification on any pistol or revolver. Possession of any such firearm upon which the same shall have been changed, altered, removed, or obliterated, shall be presumptive evidence that such possessor has changed, altered, removed, or obliterated the same. Violations of this section shall be punished by imprisonment for not less than one year nor more than five years.

SEC. 15. EXISTING LICENSES REVOKED.—All licenses heretofore issued within this State permitting the carrying of pistols or revolvers concealed upon the person shall expire at midnight of December 31, 1923.

SEC. 16. EXCEPTIONS.—This Act shall not apply to antique pistols or revolvers incapable of use as such.

SEC. 17. CERTAIN ACTS REPEALED.—All laws or parts of laws inconsistent herewith are hereby repealed.

NOTE:—This measure is approved by the United States Revolver Association, 14 West Forty-eighth Street, New York, N. Y.

EXHIBIT 4

STATUTES OF CALIFORNIA

CONSTITUTION OF 1879
As Amended

MEASURES SUBMITTED TO VOTE OF ELECTORS, 1922

GENERAL LAWS, AMENDMENTS TO CODES, RESOLUTIONS, CONSTITUTIONAL AMENDMENTS

PASSED AT THE
REGULAR SESSION OF THE
FORTY-FIFTH LEGISLATURE

1923

CALIFORNIA STATE PRINTING OFFICE
FRANK J. SMITH, Superintendent
SACRAMENTO, 1923

A 27172

Name of purchaser _____ age _____ years.
Permanent address (state name of city, town or township, street and number of dwelling) _____
_____
Height _____ feet _____ inches. Occupation _____
Color _____ skin _____ eyes _____ hair _____
If traveling or in locality temporarily, give local address _____
_____
Signature of purchaser _____
(Signing a fictitious name or address is a misdemeanor.) (To be signed in duplicate.)
Witness _____, salesman.
(To be signed in duplicate.)

Restrictions on transfer of certain firearms.

SEC. 10. No person shall sell, deliver or otherwise transfer any pistol, revolver or other firearm capable of being concealed upon the person to any person whom he has cause to believe to be within any of the classes prohibited by section two hereof from owning or possessing such firearms, nor to any minor under the age of eighteen years. In no event shall any such firearm be delivered to the purchaser upon the day of the application for the purchase thereof, and when delivered such firearm shall be securely wrapped and shall be unloaded. Where neither party to the transaction holds a dealer's license, no person shall sell or otherwise transfer any such firearm to any other person within this state who is not personally known to the vendor. Any violation of the provisions of this section shall be a misdemeanor.

Local licenses for sale of certain firearms.

SEC. 11. The duly constituted licensing authorities of any county, city and county, city, town or other municipality within this state, may grant licenses in form prescribed by the attorney general, effective for not more than one year from date of issue, permitting the licensee to sell at retail within the said county, city and county, city, town or other municipality pistols, revolvers, and other firearms capable of being concealed upon the person, subject to the following conditions, for breach of any of which the license shall be subject to forfeiture:

1. The business shall be carried on only in the building designated in the license.

2. The license or a copy thereof, certified by the issuing authority, shall be displayed on the premises where it can easily be read.

3. No pistol or revolver shall be delivered

(*a*) On the day of the application for the purchase, and when delivered shall be unloaded and securely wrapped; nor

(*b*) Unless the purchaser either is personally known to the seller or shall present clear evidence of his identity.

4. No pistol or revolver, or imitation thereof, or placard advertising the sale or other transfer thereof, shall be displayed in any part of said premises where it can readily be seen from the outside.

EXHIBIT 5

THE UNIFORM FIREARMS ACT

Recent Development of Firearms Legislation and History of Act——Proposed Measure Preserves Fundamental Provisions of Revolver Association Act—License to Carry As Against License to Purchase or Possess—Summary of Provisions

CHARLES V. IMLAY
Chairman, Committee on Uniform Firearms Act, Conference of Commissioners on Uniform State Laws

UNDER the head of "Current Legislation" in the September, 1925, number of this Journal,[1] Mr. Joseph P. Chamberlain reviewed under the title of "Legislatures and the Pistol Problem" a number of recent state statutes enacted to regulate the sale and possession of pistols and revolvers, the general trend of these enactments and their relation to prevailing laws in the various states. At the time Mr. Chamberlain's article was printed, the subject of firearms legislation had just been presented in an exhaustive report to the National Conference of Commissioners on Uniform State Laws by a committee of that body at its sessions in Detroit, August 25-31, 1925, and a first tentative draft of a proposed "Uniform Act to Regulate the Sale and Possession of Firearms" had been discussed in full by the Conference.[2] The proposed act was recommitted by the Conference to its committee and was brought again before the Conference at its sessions in Denver, July 6-12, 1926, in the form of a second tentative draft. As a result, the Conference, after another full discussion, has approved and recommended for adoption by the states, the completed Uniform Firearms Act, which received the approval of the American Bar Association along with other acts presented to the Association at the same place on July 15th by the Standing Committee on Uniform State Laws.

When the subject matter of the Act was first brought to the attention of the National Conference at its meeting at Minneapolis in August, 1923, a movement in the direction of uniform firearms legislation inaugurated by the United States Revolver Association was well under way. That Association, a non-commercial organization of amateur experts in the use of revolvers, had through its legislative committee drafted a proposed uniform law, which had already been enacted in whole or in part in a number of states. The California Act of 1923[3] which had just been passed follows the Revolver Association Act very closely. North Dakota[4] had adopted it on March 7, 1923, practically verbatim. New Hampshire had on May 4, 1923,[5] adopted it with some changes.

Because then of the favor already shown the Revolver Association Act, as well as its intrinsic merits for clearness and simplicity, that law was made the model for discussion by the Conference. Although the draft finally approved by the Conference shows some variations from the model law in the way of additions or omissions and in changes in phraseology, the fundamental principles of the model law have been preserved. And the decision of the committee of the Conference in selecting this model law has received further support in statutes passed since the matter of firearms legislation came before the Conference. The Indiana Act of 1925[6] is almost a verbatim adoption of the Revolver Association Law. And a number of the sections of the latter law are incorporated, without changes, into the Michigan Law of 1925:[7] some others being incorporated with changes. Recent acts in Connecticut,[8] New Jersey,[9] and Oregon,[10] contain more or less verbatim parts of the model law.

Need for Uniformity

That there is need of more careful regulation of the use of firearms and in particular small firearms (the subject matter of the Uniform Act) is evident from the daily newspaper records of crimes of violence committed with the revolver. The same records attest the desirability of adopting no system of regulation which would prevent the law-abiding citizen from possessing firearms for the defense of his person and property. And the same exigencies which demand the regulation of the sale and use of firearms require that the laws upon the subject be uniform: for no matter how rigid the law of one state may be upon the subject, if the law of a neighboring state be lax, it is easy for the criminal to obtain his weapon in the latter and carry it into the former.

Schemes of regulation have heretofore ranged all the way from the proposal made in the French legislature some months ago that all persons be permitted to arm *ad libitum* to be prepared for the miscreant, to the suggestion made by one of the members of the Conference in the discussion in Detroit, that no one other than a peace officer under any circumstances be permitted to carry a revolver.[11] Nor has there been any serious effort made to regulate the subject by regulating the manufacture of weapons. The nearest approach to this method was the so-called "Shields Bill" introduced in the Senate, April 25, 1921,[12] which was designed to prohibit the transportation in interstate commerce of firearms other than those of army and navy makes. The bill failed of passage. (A more

1. American Bar Association Journal, Vol. XI, p. 596.
2. Handbook Nat. Conf. Commissioners on Uniform State Laws, 1925, pp. 294, 316, 859.
3. Cal. Laws 1923, Ch. 339.
4. N. D. Laws, 1923, Ch. 266.
5. N. H. Laws 1923, ———.
6. Ind. Laws 1925, Ch. 207.
7. Mich. Public Acts 1925—No. 313.
8. Conn. Laws 1923, Ch. 252.
9. N. J. Laws 1924, Ch. 137.
10. Ore. Laws 1925, Ch. 339.
11. Handbook Nat. Conf. Commissioners on Uniform State Laws, 1925, p. 321.
12. S. 1184, 67th Cong.—See

EXHIBIT 6

NEW FIREARMS LAW EFFECTIVE ON AUGUST 7

Existing Licenses Inoperative After Dec. 31, 1924; Uniform System

IS AIMED AT LAWLESS

Possible Unconstitutionality of Clause Provided for in Drafting

Stringent regulations against carrying concealed firearms or explosives, and prohibition against possession of other deadly weapons become effective on August 7, under the Hawes bill signed by Governor Richardson.

The new measure will install a uniform licensing system for carrying concealed weapons. Licenses now in existence will become inoperative December 31, 1924.

O. K. URGED

Aimed at disarming the lawless, the bill provides exemptions and exceptions to preserve the rights of those using firearms for competition or hunting or for protection in outing trips. It was largely on the recommendation of R. T. McKissick, president of the Sacramento Rifle and Revolver Club, that Governor Richardson approved the measure.

McKissick classes it as a measure that introduces "an element of sanity into firearms legislation, so as to provide adequate punishments upon an increasing scale for the habitual gunman and, at the same time, permit law-abiding citizens to continue to own firearms for home defense and other legitimate uses."

BILLS SIMILAR

The bill, according to McKissick follows almost literally one offered in the United States Senate by Senator Capper and advocated by associations interested in the manufacture, sale and legitimate use of pistols and revolvers, as a model for a uniform bill to be introduced in each State. "It is frankly," he says, "an effort upon the part of those who know something about firearms to forestall the flood of fanatical legislation intended to deprive all citizens of the United States of the right to own and use, for legitimate purposes, firearms capable of being concealed upon the person."

The new measures change existing law by making the carrying of barred weapons such as blackjacks a felony instead of a misdemeanor. The provision against carrying explosive also is new.

ACT EXPLAINED

Possible unconstitutionality of the provision against possession of weapons by non-naturalized residents was admitted in McKissick's letter to the Governor urging signing of the bill, but he pointed out that if this clause should be held invalid the rest of the act will not be affected and that if it can be sustained that it will have a "salutary effect in checking tong wars among the Chinese and vendettas among our people who are of Latin descent."

The provision for additional sentences where weapons are used in committing a felony is one with a sliding scale. The first time the added penalty is from five to ten years, the second from ten to fifteen; the third from 15 to 25 years, and only on the fourth offense it is possible to add more than 25 years to the sentence imposed for the crime itself.

French Colony Celebrates Fall of the Bastile

Mayor Rolph Cyril H. Cane, British Vice-Consul George I. J. Marsity, Julien Neltner, Ujiro Oyama,
D. M. Stanoyevitch, Serbian Consul Acting Consul-General for Belgium Consul-General of France Consul-General of Japan
Leon L. Rey, Chairman of Day

Miss Constance Moncia

The consuls of many nations and Mayor Rolph are seen as guests of honor at the French colony's celebration of the Fall of the Bastile, which was given in Dreamland Auditorium yesterday afternoon, attended by thousands of French people and their friends.

MAJ. KENDRICK STIRS FRENCH TO CHEERING

Legion Leader Supports Ruhr Invasion to Collect Reparations From Germany

Thousands of members of the city's French colony and their friends met yesterday afternoon at Dreamland Auditorium to celebrate the 134th anniversary of the Fall of the Bastile. When Major Charles H. Kendrick, former national vice-commander of the American Legion and an officer of the Legion of Honor, declared that the United States stood solidly back of the French nation in its present course to get reparations and restitution from Germany, the throngs stood up and cheered.

The occasion was marked by the presence of the consuls of foreign nations and Mayor Rolph, who sat on the platform during the speeches, songs and entertainment features. Julien Neltner, consul-general of France, was an impressive figure in his full dress uniform which glittered with medals. His speech, which was delivered in French, rang with the love of country. He read messages of greeting from President Poincare and from King Albert of the Belgians.

Major Kendrick, in his speech upholding France in her present actions, said:

"Restitution and reparation must be made by Germany. In spite of all that you may have heard and read, be assurred that America stands solidly behind the French nation in its hour when it is trying to get restitution and reparation."

Other speakers emphasized the

Mrs. Lucille Frucot
Charles H. Kendrick
of the American Legion

Slav Banker Here For Conference

New S. F. Shipping Line Under Consideration

Establishment of a shipping line between San Francisco and Dubrovnik, principal seaport of Jugoslavia, is being considered by the new shipping commission of Jugoslavia, according to D. F. Andricevich, manager of the American department of the Adriatic Bank of Jugoslavia, who is in San Francisco for a conference with local bankers.

The ancient harbor of Dubrovnik, famous centuries ago as the "Athens of the Jugoslavs," is to be rebuilt and provided with rail connections throughout the world.

Harding Rejoices With French Nation

WASHINGTON, July 14.—A message from President Harding to President Millerand of France on the occasion of Bastile day was made public today at the State department. The President said:

"My fellow countrymen rejoice with the people and the government of France on this day which consecrates the birth of the French republic. The United States is proud to have long been closely associated with a nation whose love of liberty is historic, and whose sacrifices for the maintenance of that sacred right have been heroic"

EXHIBIT 8

wherever possible shall arrange for a "Department of American Citizenship" in all papers, magazines and journals, the material therefor to be furnished by the bureau if requested.

(h) That the Committee request the co-operation of the Commissioners on Uniform State Laws in an effort to have enacted in each State suitable laws making a course each year in the study of and devotion to American institutions and ideals part of the curriculum in all schools and colleges sustained or in any manner supported by public funds.

(5) Your Committee is impressed with the wonderful work done in past years through the "University Scholastic League" organized in Texas, and now expanded under the title "The Citizenship League of American Schools and Colleges." This organization realizes the value of school contests in orations, essays and declamations upon patriotic subjects. It thus arouses the spirit of contest, and this inspires not only the interest of pupils and students, but also arouses the interest of the father and mother.

(6) Your Committee realizes that the plans we have outlined will require the use of considerable money. We feel that the Bar of the country will be liberal in contribution, but we also feel that the burden should not rest upon the Bar alone. We believe that the public will have enough interest in this cause to see that money enough is provided to enable it to perform the greatest good, and we recommend that the Committee on American Citizenship shall have authority to call for, and receive, contributions to carry on the work—no indebtedness to be created, imposing any obligation upon this Association, or its membership.

Your Committee expreses its deep appreciation for suggestions from many lawyers not members of the Committee, and to numerous teachers and writers in schools and colleges, and to business men—all of whom have expressed their desire to be of service in this great cause. We are sure that when our Citizenship Bureau is organized all these can be relied upon for real assistance. The foregoing plan is intended only to be suggestive. The permanent Committee, when constituted, will be expected to work out in detail an adequate plan in general conformity with this report.

Respectfully submitted,

MARTIN J. WADE,
WALTER GEORGE SMITH,
EDGAR B. TOLMAN,
ANDREW A. BRUCE,
ROBT. E. L. SANER.

FOR A BETTER ENFORCEMENT OF THE LAW

Special Committee Recommends Many Changes to Make Administration of Justice More Effective But Declares Thorough Enforcement of Existing Laws Will Go Far Towards Solving Problem

THE members of your Committee on Law Enforcement, recognizing not only the great honor conferred upon them, but also the difficulty and importance of their task, immediately after the adjournment of the convention in September last, keeping in touch with one another through their chairman and from time to time by personal meetings, took up their work under your commission.

The first difficulty which confronted us was a discouraging dearth of official information upon the criminal situation in the United States. No other great civilized country is so far behind on this important matter.

First of all we urge the establishment, under the control of the Department of Justice at Washington, of a Federal Bureau of Records and Statistics to which criminal authorities in the several states must regularly report; that such reports, statistics, records, photographs, finger prints, etc., shall be immediately available to officers charged with enforcement of the criminal law throughout the country. Without knowledge of the real situation, it will be impossible thoroughly to diagnose or properly deal with the problems of crime which confront us.

Up to 1910 the government, through its census bureau, compiled a report of prison statistics. While lacking in some essentials, this compilation still supplied much valuable information. In the census of 1920, just when the study of American criminology could accomplish most, for some unaccountable reason the government abandoned altogether this most important subject. Police records, reports of mayors of cities, and of coroners and prosecuting officers, and like official tabulations are seldom complete or conclusive, for the reason that for the most part they consist not of actual data of crimes proven, but only of accusations of and arrests for crimes.

Without such information before us, it was difficult to begin any thoroughly scientific investigation. However, your committee went to work at all the sources of information it could find. Several of your committee individually visited the larger cities of the country where special movements for the suppression of crime had been inaugurated.

To the north of us is a country possessing the same substantive laws, the same religions, and, for the most part, similar dominant races; in that country, however, the criminal conditions are strikingly dissimilar to our own.

We believed that an examination into the Canadian situation might be helpful in our investigation. Accordingly, one of your committee, in December of last year, visited the cities of Montreal. Toronto. and Hamilton, and made a visit to the penitentiary at Kingston.

Inasmuch as the statistics in Chicago, owing to the work of the Chicago Crime Commission, are fairly accurate, we beg leave to offer the contrasts shown by these statistics as illuminative of the entire criminal situation.

The population of Canada is about 9,000,000 that of Cook County, Illinois, about 3,000,000, and

*Report presented at annual meeting of American Bar Association at San Francisco, August 10, 1922.

that of Chicago, 2,700,000. Notwithstanding this, we find that there were in 1921:

In Joliet penitentiary *one* of the Illinois state prisons, 1930 prisoners.

In *all* Canada's penitentiaries, 1930 prisoners.

In Chicago 4785 burglaries.

In Canada 2270 burglaries.

In Chicago 2594 robberies.

In Canada, robberies including larceny from the person, 605.

In Cook County 212 murders.

In Canada 57 murders.

It will not do to say that the Canadians are naturally more law-abiding than we, for the United States census of 1910 shows that when persons born in Canada settle in the United States, they are even a little less law-abiding than the native white citizens of this country.

Out of a Canadian born population of 1,196,070 in this country in 1910, 7956 were in our prisons, and out of the natives of 17 foreign countries living here, Canadians ranked sixth in lawlessness.

The natives of certain European countries which have the best record for law observance, when settled here become the most lawless of all.

These facts seem to dispose of two theories relative to crime:

First, that foreigners are more law-abiding because they are naturally so constituted.

Second, the other contention that crime is largely due to mental disease. It is absurd to contend that we are so mentally inferior to all other nations as to make this difference in crime; if so, why is it that the foreign-born criminals seldom get dementia præcox until they cross the ocean? Dr. Herman Adler and a corps of assisting psychologists spent more than a year investigating the mentality of the inmates of Joliet Penitentiary. The result of these investigations, as presented to your committee, was to the effect that the intelligence of the average prisoner equals that of the average enlisted man in our national army in the World War.

A few of the observable differences between this country and Canada may be noticed at once; Canada has but three large cities, most of its people live in smaller towns and in the country. Further, the administrators of the criminal law in Canada are absolutely beyond the reach of politics. The chief of police in any Canadian city is secure in his office for life if he makes good; so is every other policeman in Canada. The police force is a compactly organized semi-military body. The judge is there for life, and so, practically, if he so desire, is the prosecuting attorney.

Then, too, while the substantive law is the same as our own, the methods of its application are altogether different. Justice is swift and certain. When a Canadian is convicted, in 99 cases out of 100 that ends the matter. The Minister of Justice may, it is true, interfere if it appears that perhaps the defendant has been convicted on insufficient proof. A large proportion of even the more serious cases are tried by the judge without a jury.

As was stated to your committee, crime flourishes because criminals escape punishment, and criminals escape punishment because there are so many avenues of escape open. The prevalence of the abnormal volume of crime in our larger cities is the result of years of mollycoddling and sympathy by misinformed and ill-advised meddlers.

In Canada the penalties imposed for crime are far more severe than our own. In fact, the theory there seems to involve protection to the public, with only a secondary concern for the criminal.

Again, the general character of our immigrants is different. The Canadian population is homogeneous, ours inextricably heterogeneous. Several European countries encourage emigration to the United States. Some undoubtedly encourage criminal emigration.

Prior to 1900 we had fewer foreign-born criminals than native born. The Immigration Commission appointed by the Sixty-first Congress reported that while this was then true, nevertheless the children of the foreign-born, together with the foreign-born, contributed a larger percentage of criminals in proportion to their number, than the native-born whites.

As shown by the United States Census 1910, page 110, out of 100,000 of the native-born white population there were 312.4 prisoners; out of 100,000 of the foreign-born 732.6 were in our prisons.

Finally, there prevails an undefined but palpable difference in the attitude toward the law of the two men upon the street—the Canadian and the American. There exists in some of the European races an inherited fear of law. This fear comes from a time scarcely a century away when the punishment of every serious crime was death for the offender. The races who live across our Northern border have not wholly broken away from that influence.

Following these investigations, your committee, in order to ascertain at first hand the conditions of affairs in the several centers of population, held open sessions: in Washington March 6 and 7, in Chicago April 10 and 11, in Joliet Penitentiary April 12, in New York June 1 and 2, and a final conference in St. Paul July 10 and 11. At these sessions a number of leading penologists and criminologists appeared and testified.

In Joliet prison half a dozen of the more intelligent professional criminals gave us the attitude of the criminal mind.

We have been favored with some thousands of pages of printed and typewritten matter, most of which is of importance and has received our careful attention.

As to whether there actually exists a so-called crime wave in this country, we respectfully report:

In 1880 there were 30,659 prisoners in our penitentiaries; in 1890, 45,233; in 1904, 53,292; in 1910, 58,800. At our solicitation the Crime Commission of Chicago sent a questionnaire to the 85 wardens of state and federal prisons in this country, asking that information be sent us as to the size and character of their prison population.

From all the data and opinions of experts which your committee has been able to gather, we beg leave to report that—particularly since 1890—there has been, and continues, a widening, deepening tide of lawlessness in this country, sometimes momentarily receding, to swell again into greater depth and intensity. At intervals this tide billows into waves that rise and break, but only for a time attracting public attention.

In a statement made before your committee,

ex-Justice John W. Goff, ex-recorder of New York, summed up the situation thus:

> Officials in some cities claim there is no crime wave. The newspapers throughout the country claim that there is a wave of crime.
>
> Be that as it may, it is not for this committee, or anyone addressing it, to enter into a discussion whether it exists or not; but, at all events, I think it can be safely stated that in the history of this country we have never been before confronted with anything like the criminal conditions we have today . . . Not a day passes that there there is not recounted in the newspapers some terrible outrage involving robbery and murder. . . . In my humble judgment, the cardinal fault in the administration of criminal justice today is the lack of promptness and finality in the administration of the law. Statutory regulation and amendment may be of some use, but all statutory legislation has had a tendency within the last quarter of a century in favor of the criminal.

The criminal situation in the United States, so far as crimes of violence are concerned, is worse than that in any other civilized country. Here there is less respect for law. While your committee cannot obtain the exact figures, from all available sources of information, we estimate that there were more than 9500 unlawful homicides last year in this country; that in 1920 there occurred not less than 9000 such homicides, and that in no year during the past 10 years did the number fall below 8500. In other words, during the past 10 years, no less than 85,000 of our citizens have perished by poison, by the pistol or the knife, or by some other unlawful and deadly instrument.

Burglaries have increased in this country during the past 10 years 1200 per cent.

In short, our situation today appears almost as bad as that of England, France, Italy, and Spain as late as 1837, as portrayed by Lord Bowen.

Another important phase of this situation deserves careful attention. We deem it important to note the material difference between the character of crime conditions prevailing here and those abroad. Our regrettable eminence is due in most part to crimes of violence against the person and property. In 1910, out of the 58,800 confined in our state and federal prisons, 15,316, or more than 25 per cent of all prisoners, had committed homicides. While of course this number includes the accumulation of years, this awful fact still bears its own significance.

The evidence before us shows that there has been since 1910 a steady and terrible increase not only in homicides, but also in burglaries and robberies. One state has in its different prisons 3547 inmates; of these 1429 are guilty of taking the lives of human beings. Taken at random, a few prison records showing the number incarcerated for homicide the first of January of this year will illustrate the general situation:

	Population	Homicides
California, San Quentin	2,585	482
Nevada	150	26
Idaho	295	50
New Mexico	358	77
Delaware	349	28
New Jersey, Trenton	1,286	290
Kentucky	544	169
Joliet, Illinois	1,930	454
North Dakota	235	26
Georgia	3,547	1,429
South Dakota	320	no murders 5 manslaughter
Indiana	1,451	332
Mississippi	1,590	641
Iowa	755	144

Deliberate murder, burglary and robbery will seldom be attempted unless the criminal is armed. In European countries the criminals, as a rule, are not armed.

On the other hand, in crimes which indicate the dishonesty of the people, such as larceny, extortion, counterfeiting, forgery, fraud and other crimes of swindling, a comparison of conditions demonstrates that the morals of this country are better than in any other of the large countries of the world. The American people are an honest people; commercial integrity here works to a higher standard than in any other land, the morality of the country is higher, the lives of its citizens are cleaner, offenses against women and children are less frequent and more universally abhorred.

The criminals of this country number less than one-third of 1 per cent of the entire population. One serious obstacle to the enforcement of the criminal law arises from the attitude of the law-abiding citizen when called upon to aid in its actual administration. The American temperament adjusts itself to sympathy with the accused and a corresponding disregard for the rights of the public. In cases where much public feeling is aroused the man of affairs too often deserts the cause of justice. Chief Justice Scanlan, of the Criminal Court of Chicago, referring to some labor trials in his court a few years ago, said:

> Three hundred and eighty business men were called for jury service and 379 of them perjured themselves out of the jury box.

Want of sympathy, if not actual disrespect for the law, reaches up to the highest stations and extends down to the lowest. The ultimate enforcement of the law rests upon the jury box. If the average American citizen had without sympathy or prejudice performed his duty this terrible record would not have to be written.

In a general way the committee has endeavored to consider the question in a three-fold aspect:

First, the extent of lawlessness in this country and a comparison as between the conditions in this country and those in other civilized nations.

Second, the causes of lawlessness.

Third, suggestions as to possible remedies.

Crime and lawlessness in the United States have been steadily on the increase and out of proportion to our growth, and there has been a steady and growing disrespect for law. In our opinion this is not a result of the war. We do not find the proportional increase in crime from 1916 to 1922 greater than from 1910 to 1916, and we have not been able to discover that crimes of violence have materially increased in France, England, or Canada during or since the war, although the effects of the war naturally must be more marked in those countries.

It is our united opinion that the means provided in the United States for coping with crime and criminals are today neither adequate nor efficient, for example:

First, we find that the parole and probation laws, as administered, very generally fail to accomplish the purposes for which the laws were designed and weaken the administration of criminal justice. We recommend that first offenders, and first of-

fenders only, should be eligible for probation. The theory of the law, of course, is that the prisoner, on account of his good conduct, and where it has been demonstrated in the opinion of expert parole authorities that it is safe for the public generally, should be released. It is unquestionably true that in substantially all of the cases, no matter what the crime nor how hardened the criminal, the boards of parole, with little if any discrimination, have released the prisoner at the end of the minimum of the sentence. Those responsible for such administration overlook the purposes of punishment as a deterrent, disregard utterly the safety of the public, and defeat the very purpose of the law. We recommend that the indeterminate sentence laws should be modified so as to apply to first offenders only, and we believe, too, that neither probation nor parole should be permitted those convicted of homicide, burglary, rape or highway robbery.

Second, we find that over 90 per cent of the murders in this country are committed by the use of pistols. We find that the laws prohibiting the carrying of firearms or deadly weapons are ineffective—in fact, that they work to the benefit of the criminal rather than to the law-abiding citizen. The revolver serves no useful purpose in the community today. We recommend that the manufacture and sale of pistols, and of cartridges or ammunition designed to be used in them, shall be absolutely prohibited, save as such manufacture shall be necessary for governmental and official use under proper legal regulation and control.

Third, we find the causes for delay in criminal cases so varied and the conditions so differing, that we hesitate to make specific recommendations. Certainly it is true that the criminals and not the public benefit by these delays. The Constitution provides: "In all criminal prosecutions, the accused shall enjoy the right to a speedy trial." As everyone familiar with criminal prosecution knows, this is the kind of enjoyment that few charged with crime desire.

Dilatory motions, such as motions to inspect the grand jury minutes, which the trial judge may take under consideration almost indefinitely; motions for an order dismissing an indictment, from which, if granted, the prosecution in many of our states has no right to appeal; adjournments on account of other engagements of counsel, a privilege greatly abused in some jurisdictions, and many other causes for delay, all accrue to the benefit of the law-breaker.

We recommend that the state be given every right to appeal now enjoyed by a defendant—except from a verdict of not guilty, and we recommend that the prosecutor in a criminal trial shall have the right to call the attention of the jury to the fact that the defendant has failed to take the stand or has failed himself to contradict or deny the testimony offered by the prosecution.

We recommend that the state be given the right to amend the indictment upon proper terms, in matters of form.

We recommend that there should be but one appeal from a judgment of conviction in the trial court.

We recommend that there be enacted legislation limiting the time during which judges or courts may hold under advisement dilatory motions made in criminal trials; that at the expiration of such time, without action, such a motion shall be deemed to be denied.

Fourth, we find that in some of the states the jury is the final judge both of the law and the facts. The court may inform the jurors as to the law, but he must instruct them that while he has expressed his opinion, they must be the final judges, not only as to the facts, but as to the law, and its application to the evidence. Thus it is clearly within the power of jurors absolutely to nullify the laws of a sovereign state and there is no appeal on the part of the government from their determination. We believe that such a condition is absolutely subversive of a government of law and we recommend the repeal of such statutes.

Fifth, we find in various jurisdictions glaring abuses in the matter of bail, both in the amount imposed and in the sufficiency of security offered.

Sixth, we find that further legislation should be enacted by the Congress to punish and prevent lynching and mob violence.

Seventh, we find that more stringent laws limiting and controlling immigration should be enacted and enforced.

Eighth, we find that the bill now pending in the Congress, increasing the number of United States District Judges and conferring powers upon the Chief Justice and Senior Circuit Judges to have supervision over the work of the courts and see that the dockets are kept clear, should be enacted.

Ninth, no meritorious case, whether civil or criminal, that is cognizable in the courts of the country, ought to be denied the services of an able, courageous and loyal advocate. And no man or woman, however humble, ought to be able to say in any American community that justice is too expensive for the poor. We therefore urge that in every community the members of this association volunteer to aid, without fee, the worthy poor who are being oppressed, defrauded or otherwise wronged, and who have not the means to employ counsel.

Tenth, first offenders must be segregated from veteran criminals, for the jails throughout the land today are breeding places for crime, and the young and thoughtless who may often be reclaimed, are taught by professional criminals to scorn the restraints of society; and in this connection we may well consider the extension of psychopathic laboratories established as adjuncts to the criminal courts.

From what has been intimated, many more specific recommendations could have been made which, if adopted, might improve the efficiency of our courts. But in the opinion of the committee it is not necessary to wait another day, or to wait for new laws. Such laws would be helpful, but if we honestly and thoroughly enforce those which we already have, we shall have traveled a long ways towards the solution of the problem.

Respectfully submitted,

WILLIAM B. SWANEY, *Chairman,*
MARCUS KAVANAGH,
CHARLES S. WHITMAN,
WADE H. ELLIS,
CHARLES W. FARNHAM,
Committee.

EXHIBIT 9

REPORT

OF THE

California Crime Commission

1929

COMMISSIONERS:

JAMES A. JOHNSTON, Chairman
W. A. BEASLY
BURON FITTS
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erty stolen and recovered. Much valuable information can be obtained from the reports published by these governmental departments.

Many reports are published by police departments in this state. To a large extent they are filled with lists of police personnel, data regarding traffic violations, history of the department, names of retired officers, pension lists, relief associations, departmental budgets and matters of purely local concern. Very little space is devoted to the classification and number of crimes committed, arrests made, number of convictions, offenders held to answer, disposition of cases, causes and extent of crime, methods of prevention, police schools, or such kindred subjects as would be valuable for the study of crime conditions. Such reports as are published are compiled according to the idea of the commanding officer of the various police departments. Each differs from the other. They are valueless as a basis for the study of crime in a state-wide sense. The same holds true of reports compiled by probation officers, sheriffs and coroners.

The commission is strongly in favor of the establishing of a section within the State Bureau of Criminal Identification and Investigation devoted to the extention of its present work of gathering information which will enable the Governor, his cabinet and the legislature to know something about crime conditions in this state. It is a task which the state should assume.

CONTROLLING FIREARMS

The commission submits and recommends the enactment of a bill amending the act of 1923, regulating the possession, sale and use of pistols, revolvers and other firearms capable of being concealed upon the person. The bill requires all persons desiring to purchase a firearm capable of concealment to file an application to carry such weapon. Such application shall contain information regarding applicant, including his finger prints. Copies of all applications and dealers registers must be mailed to the State Bureau of Criminal Identification and Investigation to be checked.

In a very large percentage of the serious crimes now being committed, a firearm of some sort is used. Robberies and burglaries are almost invariably committed with the aid of pistols. Guns are frequently used in murders, manslaughters, highjacking and rum-running cases. The pistol came into its own, as an effective weapon of the criminal, when the present day automobile made the fast getaway possible. Automobiles are being used not only as a means of escape but as a place from which shots are fired.

The sale of automobiles can not be regulated to keep them out of the hands of criminals, but the sale of firearms can be regulated and effectively controlled. Pistols are acquired by criminals in two ways; by purchase or by theft. The purchase of firearms by undesirable persons should be prevented as far as is humanly possible. The Baumes Committee of New York in 1926 made the following observations relative to firearms:

> "It is unquestionably true that the pistol is one of the greatest, if not the greatest, menaces to the peace of society today, and that its free use in the commission of crimes of violence has caused more unrest among people, and added more to the horror of crimes than any other one thing. It is one reason why crimes of violence are common today and the criminal successful in such crimes, particularly holdups and robberies. Add to this the use of the automobile for quick getaway and you have a complete picture of the terror which is spread among people and of a situation which puzzles the police to detect or prevent, and the courts to punish.
>
> While New York state was a pioneer in seeking to control the use of pistols, there is still the necessity for some means to be found by which the consequence of the use of pistols by criminals can be made so dreaded that they will be deterred from using them. It is stated by a prominent authority that there are more people shot to death in the United States by pistols than in all the rest of the world.
>
> The government officials charged with the responsibility for the enforcement of criminal laws are of the opinion that the control of the pistol is of fundamental importance. Three international police conventions, representing forty-seven nations of the world have, by formal resolution, expressed this view."
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> (Report of the Crime Commission of New York state, 1926, pages 14–15.)

In 1927 the Crime Commission of New York state, in its report, said:

> "Firearms in private homes cause many tragedies and are of little avail for defense against criminals. The argument that a revolver in a man's pocket is a protection, is a fallacy. He is safer without a gun than with one. The ordinary citizen walking along the street, even though he has a gun in his hip pocket, if suddenly called upon to "stick-em-up" and feels a pistol stuck into his ribs, is likely to comply with such a demand, that is if he is an intelligent person, for the crook can always beat him to it in the use of a gun. Similarly a householder confronting an armed burglar who has invaded his home at night seldom has opportunity to get his gun from where it is kept and defend himself. Here again the crook "beats him to it."
>
> Some persons take the view that there is no use in any of the states enacting pistol laws and that nothing can be done until the federal government controls pistols. It is also held that there is no use in the state of New York enacting an effective pistol law so long as a man can cross into New Jersey and get all the pistols he wants or can go to Connecticut or to some other neighboring state and get them there, or send an order to a mail order house and get a pistol through the mails.
>
> This is a partial and short-sighted view of the situation. In the first place it is probable that the federal government can never control the sale and use of pistols in the various states, for that power has not been delegated to it by the states. Probably all that the federal government can do is to prohibit the transportation of pistols in the mails, the importation of pistols into the country from outside and the transportation of pistols from one state into another state, where that state has laws forbidding or controlling the sale of pistols.
>
> The recent enactment by congress of a law forbidding the transportation of pistols in the mails should go far to stop the mail order business in pistols, but all a person needs to do to get a gun, even with this new enactment, is to have his pistol sent by express; and dealers in pistols who have made large sums of money in this profitable trade are not likely to cease that trade because of this change in the statute. It was entirely proper to have such a law enacted, however, for the government should not even have the semblance of being a participant in crime.
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> * * * * * * *
>
> We have no patience with the parrot-like cry that no law can be enacted which will keep guns out of the hands of crooks. This may be true and may not be true. If such an argument were taken seriously it would apply to all legislation. It would be just as wise to say that there is no use in enacting a law against the sale and use of dangerous narcotic drugs, for it will never be possible to completely keep these out of the hands of persons who wish to peddle them, or to use them, and the analogy might be extended further but a discussion of the subject in that aspect is profitless. There is no doubt that the Sullivan law, inadequate as it is, has proved a most effective weapon in enabling the police to deal with crime and criminals. What is needed now is to strengthen that law to meet modern conditions."
>
> (Report of the Crime Commission of New York state, 1927, pages 16–17.)

Clarence S. Morrill, superintendent of the Bureau of Criminal Identification and Investigation of the State of California, made the following comment to the commission:

> "The report of the sale of firearms by dealers should be sent to the State Bureau of Criminal Identification rather than to the county clerk. It would be a good idea to require the purchaser of a firearm to have a permit before he makes the purchase. It would likewise be helpful to cause the purchaser of a firearm to have his fingers printed."

Court Smith, warden of Folsom Prison, at a meeting of the commission in Sacramento, said:

> "A chief of police in one part of the state should not be permitted to grant a permit to a person residing in another part of the state to carry a firearm. If a person moves to another part of the state after getting a permit, he should be required to get a new permit at the place where he carries the gun. Criminals often get guns from stolen automobiles or they steal them from homes. Many dealers do not report sales of guns. The same situation applies to the Motor Vehicle Act requiring garage owners to report storage of cars. A similar situation prevails oftentimes with respect to pawnshops. They frequently fail to make reports to officials."

T. N. Koening, chief of police of Sacramento, at a meeting in Sacramento, in speaking of the firearms situation, said:

> "Often when applications are made to me for permission to carry a gun I advise the applicants to buy a police whistle; blowing a police whistle is more protection to the citizen than a gun. The twenty-four-hour notice by the dealer to the police is too short to permit the police to make a proper check of the applicant. The time should be lengthened to forty-eight hours. Finger printing of applicants would assist the police in making a check. I believe the gun law has had the effect of cutting down the sale of firearms. The gun law does not regulate the sale of guns by persons other than the regular dealers.

Chester Rowell of Berkeley has the following to say regarding the use of firearms:

> "Watch the news on this subject, as the writer has done for years, and this is the sort of thing you will always find. In the past thirty years, so far as memory recalls, there have been just two instances in the news in which the weapon kept for protection killed the right person, and in one of these two it was a shotgun. In neither of them was the householder any safer than he would have been if unarmed. But there are literally hundreds of cases in which the weapon, kept supposedly for protection, killed the owner or one of his family. There are dozens in which the burglar was captured and hundreds in which he was frightened away without weapons, and there are not a few in which armed men were shot by burglars or robbers who would not have been hurt if unarmed."

After careful thought the commission will offer to the legislature for consideration a bill, which will amend the present firearms law. The commission recognized that the present gun law of this state is an excellent law and has been of material aid in curbing the unrestrained sale of guns. The amendment to the law is offered solely with the thought of strengthening the statute.

The amendments to the act will make the following changes:

1. Every person who desires the privilege of carrying a pistol (defined in the act as a gun with a barrel less than twelve inches in length) must first apply to the proper peace officer in his community for a permit to carry such weapon. The application shall be in duplicate and shall, in addition to the data now required by the statute, contain the fingerprints of the applicant. A copy of the application shall be mailed to the Bureau of Criminal Identification and Investigation at Sacramento by the peace officer on the day the application is made. It becomes a misdemeanor for any person to give false information in the application.

2. Every person desiring to purchase a pistol or revolver, after procuring a permit to carry such weapon, must present his permit to the merchant, or other person from whom he desires to make the purchase. If the purchase is to be made from a merchant he must sign a register in triplicate. The register, in addition to the data now required by statute, shall set forth the date of the permit and the name of the officer who issued the permit. On the date of sale a triplicate copy of the register sheet will be mailed to the Bureau of Criminal Identification at Sacramento and another to the officer who issued the permit. No revolver shall be delivered to the purchaser until seventy-two hours after the copies of the register are mailed.

3. If the superintendent of the Bureau of Criminal Identification finds that the record of a person making application for a permit to carry a concealed weapon is such that the permit should be refused, he shall so advise the officer to whom the application is made. Upon receipt of such notice from the bureau, it shall be the duty of the officer to deny the application. The Bureau of Criminal Identification is also given the power to prevent the delivery of a pistol to the purchaser if the record of the said person is such that it seems advisable to refuse such purchase.

RECEIVERS OF STOLEN PROPERTY

The commission submits and recommends the enactment of a bill adding a new section to the Penal Code to be numbered 496c providing that any person receiving stolen property without making diligent inquiry to ascertain that the person selling the property has a legal right to do so, is guilty of a felony. The burden is placed on the defendant to prove that he made such diligent inquiry.

The receiver of stolen property, commonly called "the fence," is frequently a professional criminal. He encourages others to rob, steal and burglarize. He thrives on the crimes of others. Often his outward appearance is that of a good citizen conducting a legitimate business. Under this guise he carries on his nefarious trade.

It has been reliably estimated that ninety per cent of stolen property is not recovered. What becomes of this ninety per cent? The thief who steals it has no use for it unless he can convert it into cash. In order to get cash he must sell it to someone with whom he is in league. One fence may deal with a dozen thieves and be the inducing cause of hundreds of thefts, burglaries and robberies.

It has frequently been brought to the attention of this commission by judges and law enforcing officers in Los Angeles County that young men come to that county from eastern states without adequate means to sustain themselves. They visit pool halls and other hangouts and are advised that a good way to get money is to steal and sell the loot. They are told where they can sell stolen property. Men engaged in the business of dealing in stolen property buy the goods and provide them with money.

EXHIBIT 10

REPORT

OF THE

STANDING COMMITTEE ON UNIFORM STATE LAWS.

To The American Bar Association:

As President of the National Conference of Commissioners on Uniform State Laws, and as such, *ex officio*, The American Bar Association Committee on Uniform State Laws, I submit the following report:

RECOMMENDATIONS.

It is recommended that this committee be permitted to file a Supplemental Report after the meeting of the National Conference of Commissioners on Uniform State Laws at Denver to contain copies of such uniform acts as the National Conference may finally approve at that meeting and that acts so submitted to this Association be approved by this Association.

REPORT

In the report of last year to this Association, Bar Association Reports, Vol. 50, for 1925, beginning on page 560, is a full and exhaustive statement of the work now being considered by the Conference, to which reference is here made.

Since that report was submitted some acts have been brought to such a state of completion that it is hoped they will be finally approved by the Conference at the July meeting in Denver and such of said acts as may be so approved will be submitted to this Association at Denver for its approval. These acts may be approved:

1. Uniform Federal Tax Lien Registration Act.
2. Uniform Chattel Mortgage Act.
3. Uniform Motor Vehicle Code.
4. Uniform Firearms Act.
5. Uniform Public Utilities Act.

During the year the committee having in charge the Uniform Motor Vehicle Act, in cooperation with the committees of the National Conference on Street and Highway Safety, called by Secretary of Commerce Hoover, have divided the act into four

not appear until judicial sale, shall be entitled to further proceedings to recover the deficiency.

SEC. 69. [*Disposal of the Goods by Surrender or Agreement.*]

1. At any time after inception of the mortgage the mortgagor and mortgagee may contract in writing for the voluntary surrender of the mortgagor's rights to the subject matter, without prejudice to any other encumbrance which may exist, in satisfaction of the obligation secured, or providing in any other manner for whole or partial liquidation of such obligation otherwise than as provided by this act.

2. Such a contract, made after default, shall, as between the parties, be valid and displace to that extent the provisions of this act with reference to foreclosure and redemption; and shall be valid as against creditors of the mortgagor unless proved to be a fraudulent conveyance.

SEC. 70. [*Time and Manner of Taking Effect.*]

1. This act shall take effect.....

2. This act shall not apply to mortgages made prior to the time when it takes effect.

SEC. 71. [*Short Title.*]

This act may be cited as Uniform Chattel Mortgage Act.

SEC. 72. [*Inconsistent Laws Repealed.*]

[Except so far as they are applicable to mortgages made prior to the time that this act takes effect, the following acts shall be and hereby are repealed . . . .; and] all acts or parts of acts inconsistent with this act are hereby repealed.

SEC. 73. [*Uniformity of Interpretation.*]

This act shall be so interpreted and construed as to effectuate its general purpose to make uniform the law of those states which enact it; and so as to effectuate its purpose of protection against secret liens.

SEC. 74. [*Singular Includes Pural; Principal Includes Agent.*]

1. The singular of any noun or pronoun in this act shall in proper case be construed to include the plural.

2. Any designation of a person in this act, for any purpose, shall be construed to include his agent in that behalf.

SEC. 75. [*Cases Not Provided For.*]

In any case not provided for in this act the rules of law and equity, including the law merchant, and of statutes, shall continue to apply to mortgages.

SEC. 76. [*Rights May Be Enforced By Action.*]

Any right, duty, or power declared by this act may be enforced by appropriate action.

EXHIBIT C.

A UNIFORM ACT TO REGULATE THE SALE AND POSSESSION OF FIREARMS.

AN ACT

REGULATING THE SALE, TRANSFER AND POSSESSION OF CERTAIN FIREARMS, PRESCRIBING PENALTIES, AND RULES OF EVIDENCE, AND TO MAKE UNIFORM THE LAW WITH REFERENCE THERETO.

SECTION 1. [*Definitions.*]

"Pistol" or "revolver," as used in this act, means any firearm with barrel less than 12 inches in length.

"Crime of Violence," as used in this act, means any of the following crimes or an attempt to commit any of the same, namely, murder, manslaughter, rape, mayhem, assault to do great bodily harm, robbery [larceny], burglary, and housebreaking.

SEC. 2. [*Committing Crime When Armed.*]

If any person shall commit or attempt to commit a crime of violence when armed with a pistol or revolver, he may in addition to the punishment provided for the crime, be punished also as provided by this act.

SEC. 3. [*Being Armed Prima Facie Evidence of Intent.*]

In the trial of a person for committing or attempting to commit a crime of violence, the fact that he was armed with a pistol or revolver and had no license to carry the same shall be *prima facie* evidence of his intention to commit said crime of violence.

SEC. 4. [*Persons Forbidden to Possess Arms.*]

No person who has been convicted in this state or elsewhere of a crime of violence, shall own or have in his possession or under his control, a pistol or revolver.

SEC. 5. [*Carrying Pistol Concealed.*]

No person shall carry a pistol or revolver concealed in any vehicle or on or about his person, except in his dwelling house or place of business, or on other land possessed by him, without a license therefor as hereinafter provided.

SEC. 6. [*Exceptions.*]

The provisions of the preceding section shall not apply to marshals, sheriffs, prison or jail wardens or their deputies, policemen, or other duly appointed law enforcement officers, or to members of the Army, Navy, or Marine Corps of the United States, or of the National Guard, when on duty, or of organizations by law authorized to purchase or receive such weapons from the United States or this state, or to officers or employees of the United States authorized by law to carry a concealed pistol or revolver, or to duly authorized military organizations when on duty, or to the members thereof when at or going to or from their customary places of assembly, or to the regular and ordinary transportation of pistols or revolvers as merchandise, or to any person while carrying a pistol or revolver unloaded in a wrapper from the place of purchase to his home or place of business, or to a place of repair or back to his home or place of business, or in moving goods from one place of abode or business to another.

SEC. 7. [*Issue of Licenses to Carry.*]

[The justice of a court of record, the chief of police of a city or town, and the sheriff of a county, or persons authorized by any of them], shall, upon the application of any person having a *bona fide* residence or place of business within the jurisdiction of said licensing authority, or of any person having a *bona fide* residence or place of business within the United States and a license to carry a pistol or revolver concealed upon his person issued by the authorities of any state or subdivision of the United States, issue a license to such person to carry concealed upon his person a pistol or revolver within this state for not more than one year from date of issue, if it appears that the applicant has good reason to fear an injury to his person or property or has any other proper reason for carrying a pistol or revolver, and that he is a suitable person to be so licensed. The license shall be in triplicate, in form to be prescribed by the [Secretary of State], and shall bear the name, address, description and signature of the licensee and the reason given for desiring a license. The original thereof shall be delivered to the licensee, the duplicate shall within [seven] days be sent by registered mail to the [Secretary of State] and the triplicate shall be preserved for six years by the authority issuing said license.

SEC. 8. [*Selling to Minors.*]
No person shall sell, barter, hire, lend, or give any pistol or revolver to any person under the age of 18 years.

SEC. 9. [*Transfers Regulated.*]
No person shall transfer by way of sale, gift, loan or otherwise a pistol or revolver to a person who he has reasonable cause to believe has been convicted of a crime of violence. No seller shall in any event deliver a pistol or revolver on the day of the application for the purchase thereof, and when delivered, said pistol or revolver shall be securely wrapped and shall be unloaded. Before a delivery be made the purchaser shall sign in triplicate and deliver to the seller a statement containing his full name, address, occupation, color, and place of birth, the date of sale, the caliber, make, model, and manufacturer's number of the weapon, and stating that he has never been convicted of a crime of violence. The seller shall, within seven days, sign and forward by registered mail one copy thereof to the [Secretary of State], and one copy thereof to the chief of police of the city or town or the sheriff of the county of which the seller is a resident, and shall retain the other copy for six years. This section shall not apply to sales at wholesale.

SEC. 10. [*Dealers to be Licensed.*]
No retail dealer shall sell or otherwise transfer, or expose for sale or transfer or have in his possession with intent to sell, or otherwise transfer, any pistol or revolver without being licensed as hereinafter provided.

SEC. 11. [*Dealers' Licenses: By Whom Granted, and Conditions Thereof.*]
The duly constituted licensing authorities of any city, town or political subdivision of this state, may grant licenses in form prescribed by the [Secretary of State] effective for not more than one year from date of issue, permitting the licensee to sell at retail within the said city or town or political subdivision, pistols and revolvers, subject to the following conditions, for breach of any of which the license shall be subject to forfeiture:

1. The business shall be carried on only in the building designated in the license.

2. The license or a copy thereof, certified by the issuing authority, shall be displayed on the premises where it can be easily read.

3. No pistol or revolver shall be delivered—

(a) If the seller has reasonable cause to believe that the purchaser has been convicted of a crime of violence; nor

(b) Unless the purchaser either is personally known to the seller or shall present clear evidence of his identity; nor

(c) On the day of the application for the purchase; nor

(d) Unless the same shall be unloaded and securely wrapped.

4. A true record, in triplicate, shall be made of every pistol or revolver sold, said record to be made in a book kept for the purpose, the form of which shall be prescribed by the [Secretary of State], and shall be personally signed by the purchaser and by the person effecting the sale, each in the presence of the other, and shall contain the date of sale, the caliber, make, model and manufacturer's number of the weapon, the name, address, occupation, color, and place of birth of the purchaser, and a statement signed by the purchaser that he has never been convicted of a crime of violence. One copy of said record shall within seven days be forwarded by registered mail to the [Secretary of State] and one copy thereof to the chief of police of the city or town or the sheriff of the county of which the seller is a resident, and the other copy retained for six years.

5. No pistol or revolver, or imitation thereof, or placard advertising the sale or other transfer thereof, shall be displayed in any part of said premises where it can readily be seen from the outside.

No license to sell at retail shall be granted to anyone except as provided in this section.

SEC. 12. [*False Information Forbidden.*]

No person shall in purchasing or otherwise securing delivery of a pistol or revolver or in applying for a license to carry the same, give false information or offer false evidence of his identity.

SEC. 13. [*Alteration of Identifying Marks Prohibited.*]

No person shall change, alter, remove, or obliterate the name of the maker, model, manufacturer's number, or other mark of identification on any pistol or revolver. Possession of any pistol or revolver upon which any such mark shall have been changed, altered, removed, or obliterated, shall be *prima facie* evidence that the possessor has changed, altered, removed or obliterated the same.

SEC. 14. [*Existing Licenses Revoked.*]

All licenses heretofore issued within this state permitting the carrying of pistols or revolvers concealed upon the person shall expire at midnight of....., 192.....

SEC. 15. [*Exceptions.*]

This act shall not apply to antique pistols or revolvers unsuitable for use as firearms.

SEC. 16. [*Act Supersedes Local Laws.*]

The provisions of this act shall be effective and controlling throughout this state, notwithstanding the provisions of any local law or ordinance.

SEC. 17. [*Penalties.*]

Any violation of any provision of this act shall constitute an offense punishable by a fine of not more than [$.....] or imprisonment for not more than [.....], or both, or by imprisonment in the penitentiary for not less than [.....], nor more than [.....].

SEC. 18. [*Constitutionality.*]

If any part of this act is for any reason declared void, such invalidity shall not affect the validity of the remaining portions of this act.

SEC. 19. [*Short Title.*]

This act may be cited as "Uniform Firearms Act."

SEC. 20. [*Effective Date.*]

This act shall take effect on the.....day of.....19.....

SEC. 21. [*Certain Acts Repealed.*]

All laws or parts of laws inconsistent herewith are hereby repealed.

EXPLANATORY STATEMENT REGARDING UNIFORM FIREARMS ACT.

RELATION OF ACT TO RECENT FIREARMS LEGISLATION.

The National Conference of Commissioners on Uniform State Laws at its Thirty-Sixth Annual Meeting held at Denver, Colo., July 6-12, 1926, approved the Uniform Firearms Act and voted that it be recommended to the states for adoption. On July 15th The American Bar Association, meeting at the same place unanimously approved the act.

When the subject matter of the act was first brought to the attention of the National Conference at Minneapolis in August, 1923, much had already been accomplished in the direction of uniform firearms legislation by the United States Revolver Association. Its legislative committee had drafted a uniform law which had already been adopted with a few changes, by North Dakota and New Hampshire. California had also

adopted it with some qualifications and additions. The law was thereafter adopted in Indiana on March 12, 1925, and much of its subject matter has been enacted in the Oregon Act of February, 1925, the West Virginia Act of April 25, 1925, and the Michigan Act of May 26, 1925.

It was therefore because of the timeliness of firearms legislation and the current development of the subject that a uniform law seemed desirable. Practical reasons demanded it; *e. g.*, the necessity of uniform regulations which will prevent a criminal from going from a state where regulations are strict and securing a weapon in a state where they are lax.

Because of the intrinsic merits of the Revolver Association Act as well as the favor already shown to it, the Conference, after a study of all state legislation upon the subject, adopted the Revolver Association Act as a working model. While changes have been made in language and arrangement, and while there have been some omissions of provisions contained in the model law, and the addition of new matter, the fundamental provisions of the Uniform Act, remain the same as those of the model act.

The principles of the Uniform Act have, therefore, already obtained recognition by state legislatures to the extent that the Revolver Association Act has already been adopted. These principles are believed to be consonant with legislative precedent and practical experience, and superior to minority views reflected in some past legislation and in a few recent enactments. For example, the Arkansas Act of March 16, 1923, required a state-wide registration of firearms, but the act proved such a failure that it was repealed in 1925. (A similar provision in the Michigan Act of 1925, the only other of the kind found, has not yet been put into effect.) Another example is that of the recent Massachusetts Act which requires a license to purchase a firearm: one of the few enactments following the theory of the New York law which for a long time has been practically the only statute attempting that form of regulation.

It is submitted that the provisions of the Act present no constitutional objections, constitute no drastic changes in the law of any jurisdiction and if adopted generally will not only secure uniformity, but will remove the evils of the present lack of uniformity.

GENERAL PRINCIPLES OF ACT.

The general principles embodied in the act may be summarized as follows:

1. Without hampering the facility of a law-abiding citizen to secure arms for the protection of his home, the Act seeks by strict regulation of dealers, identification of purchasers, and strict licensing of those who carry concealed firearms to keep such weapons out of the hands of criminals.

2. The act provides a heavier penalty for a crime of violence by one who is armed whether legally or not, and makes the illegal possession of a pistol or revolver *prima facie* evidence of intent.

3. The act adopts the universal principle in all state statutes forbidding the carrying of concealed weapons with a complete enumeration of classes of excepted persons and with sufficient exceptions to suit special circumstances.

4. The act forbids the possession under any circumstances of pistols by persons who have committed crimes of violence as defined by the act, but does not extend the prohibition to aliens.

5. The act adopts the general principle of forbidding the transfer of pistols to minors.

6. The act contains a detailed method of identification in the case of sales by private persons and transfers by dealers, requiring licenses of dealers.

7. The act provides a complete system for granting licenses to carry concealed weapons in cases where the character of the applicants for licenses and the emergencies justify the same.

8. The provisions of the act are made effective by specific provisions against the giving of false information by purchasers and applicants for licenses, and the alteration of identification marks on weapons.

9. The act by specific provision is made state-wide, thus eliminating conflicting local ordinances.

10. A general penalty provision is contained in the act with terms of imprisonment and amounts of fines left blank, so as to suit the needs of the particular state enacting the law.

COMMENTS ON INDIVIDUAL SECTIONS.

SECTION 1. A "pistol or revolver" is defined as a firearm with barrel less than twelve inches in length, in accordance with definitions already prevailing in state statutes. Other kinds of dangerous weapons are not included. "Crime of violence" which is used in numerous places in the act is defined to cover such crimes as are ordinarily committed with the aid of firearms.

SEC. 2. An additional penalty is provided for persons committing crimes of violence when armed. This provision is found, not only in recent enactments following the Revolver Association Act, but in other statutes of other states, some of long standing.

SEC. 3. The fact that a criminal is armed with a pistol or revolver without license is deemed *prima facie* evidence of his intention to commit the crime of violence with which he is charged. This provision is also found, not only in those states which have followed the Revolver Association Act, but in a number of other states.

SEC. 4. One convicted of a crime of violence is absolutely forbidden to own or possess a pistol or revolver. This provision also has considerable precedents in existing state legislation and is thought to be useful for keeping firearms out of the hands of criminals.

SEC. 5. This section forbids the carrying of concealed weapons and is similar to provisions prevailing in practically every jurisdiction in this country. It adopts the modern theory of making the probition extend, not only to weapons concealed on the person, but also in vehicles. It is intended thus to remove the easy method by which a criminal on being pursued may transfer a weapon from his pocket to a concealed place in a vehicle.

SEC. 6. This section enumerates all the classes of persons who it seems should be excepted from the provisions of Section 5, the list being adopted after a comparision of persons named in existing state statutes. The exception of a concealed weapon in a dwelling house or place of business is contained in the preceding section: this section extends the exceptions to cases where the weapon may be in process of being carried for mere purposes of legitimate transfer or for repair.

SEC. 7. This section defines the method for application and issuance of licenses to carry concealed weapons and for the preservation of the record of the same. It is in line with existing provisions. No bond provision has been added because it is believed that if a proper showing is made on the part of the applicant as to character and necessity, the bond provision should not be introduced to make the obtaining of the license difficult and burdensome.

SEC. 8. The provisions of this section forbidding the delivery of a weapon to a minor are similar to those generally now prevailing. The age of 18 years named in the section has been deemed more desirable than the younger age named in a number of statutes and the higher age named in some. It is believed that in ordinary instances youths will be of sufficient maturity at 18 and that the naming of a higher age might make it impossible to deliver weapons to mature youths who might need them.

SEC. 9. This section first forbids a transfer of any kind of firearm to one who the transferrer may have reasonable cause to believe has been convicted of a crime of violence. The provision forbidding a seller to transfer on the day of purchase is intended to avoid the sale of a firearm to a person in a fit of passion. The section further requires identification of purchaser and weapon and the preservation of this identification.

SEC. 10. This section requires a license of dealers and is in line with existing statutes.

SEC. 11. This section constitutes the conditions under which licenses will be granted to dealers and for the breach of which such licenses will be forfeited. These conditions are in line with all modern legislation on the subject and constitute the chief safeguard against firearms coming into the possession of undesirables.

SEC. 12. This section prohibits the giving of false information in purchasing a fire arm or in applying for a license to carry the same. The principles of the section have been adopted, not only by those states adopting the Revolver Act, but by a number of other states.

SEC. 13. This section, also designed to preserve the identification of weapons in connection with transfers, forbids the changing of identifying marks and provides that the possession of pistols from which such identifying marks have been obliterated shall be *prima facie* evidence that the possessor has changed the same. It has been adopted by all states which have enacted the Revolver Association Act.

SEC. 14. This section revokes all existing licenses on a date to be inserted by the enacting state.

SEC. 15. This section is designed to remove from the operation of the act, firearms that are kept merely as curiosities. It has been adopted already in those states which have passed the Revolver Association Act.

SEC. 16. This section was designed by the committee of the Conference and adopted by the Conference for the purpose of making the act apply throughout the state at large so that conflicts with local ordinances might be avoided. The necessity for this section arises from the fact that firearms regulation has been in many places a matter of city ordinance.

SEC. 17. This is the general section which provides penalties for violations of the various provisions of the Act. The amounts of fines and the lengths of imprisonment are left blank so that these may be fixed according to the needs and usages of the particular state. This section is so framed as to be applicable to different state definitions of misdemeanors and felonies. A general penalty section has been thought more scientific than the naming of penalties in connection with specific sections.

SEC. 18. This section is intended to avoid the invalidity of the entire act by a judicial holding that a particular part is unconstitutional. It has been added by the Conference as one of its model sections contained in most uniform acts.

SEC. 19. This section, in accordance with the practice of the Conference provides for a short designation of the act to avoid the longer definition at the beginning. In the selection of the words, "Uniform Fire-

EXHIBIT 11

Homicide In California, 2013

KAMALA D. HARRIS, ATTORNEY GENERAL
CALIFORNIA DEPARTMENT OF JUSTICE
CALIFORNIA JUSTICE INFORMATION SERVICES DIVISION
BUREAU OF CRIMINAL INFORMATION AND ANALYSIS
CRIMINAL JUSTICE STATISTICS CENTER

Homicide in California 2013

KAMALA D. HARRIS, ATTORNEY GENERAL • CALIFORNIA DEPARTMENT OF JUSTICE

California Homicide Statistics for 2013

Homicide in California, 2013 contains information about the crime of homicide and its victims, including demographic data on persons arrested for homicide, number of persons sentenced to death, the number of peace officers killed in the line of duty, and justifiable homicide data. This report includes data for 2013 and prior years.

Homicide Crimes

There were 1,745 homicides reported in 2013. This number represents a 7.1 percent decrease from the 1,878 reported in 2012 and a 27.1 percent decrease from the 2,394 reported in 2004. (Table 1)

The 1,745 reported homicides also translate to a rate of 4.6 homicide crimes per 100,000 population. This figure represents an 8.0 percent decrease from the 5.0 rate reported in 2012 and a 31.3 percent decrease from the 6.7 rate reported in 2004. (Table 1)

- Over the past decade the homicide rate ranged from a high of 7.0 in 2005 to this year's low of 4.6. The homicide crime rate has not been this low since 1964, when the rate was 4.2 per 100,000.

From 2004-2013:

- The majority of homicide victims have consistently been male. (Table 5)
- The largest proportion of victims has consistently been Hispanic. (Table 6)
- The largest percentage of homicide victims has consistently been aged 18-29. (Table 7)

In 2013:

- 82.1 percent of homicide victims were male, 17.9 percent were female. (Table 5)
- Of the homicides where the victim's race/ethnicity was identified, 42.4 percent of victims were Hispanic, 30.7 percent were black, 21.2 percent were white, and 5.7 percent were categorized as "other." (Table 6)
- While the largest proportion of Hispanic and black victims were aged 18-29 (47.4 and 48.3 percent, respectively), over half (56.4 percent) of white victims were aged "40 and over." (Table 9)
- When the victim-offender relationship was identified, 46.9 percent were killed by a friend or acquaintance, 30.9 percent by stranger, and 16.5 percent by their spouse, parent, or child. Males were more likely than females to be killed by strangers (37.9 percent vs. 12.5 percent respectively). Females were more likely than males to be killed by their spouse (24.2 percent vs. 0.6 respectively). (Table 12)
- Of the homicides where location was reported, 36.5 percent occurred on the street or sidewalk, 25.5 percent in the victim's residence (includes shared), and 14.0 percent in a residence other than the victim's. (Table 19)

Table 21
HOMICIDE CRIMES, 2004-2013
By Type of Weapon Used

Type of weapon used	2004		2005		2006		2007		2008	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total including unknown	2,394		2,503		2,483		2,258		2,143	
Unknown	12		22		25		34		33	
Total known	2,382	100.0	2,481	100.0	2,458	100.0	2,224	100.0	2,110	100.0
Firearm	1,730	72.6	1,845	74.4	1,821	74.1	1,610	72.4	1,487	70.5
Handgun	1,462	61.4	1,547	62.4	1,619	65.9	1,373	61.7	1,153	54.6
All other firearms	268	11.3	298	12.0	202	8.2	237	10.7	334	15.8
Rifle	73	3.1	87	3.5	74	3.0	52	2.3	48	2.3
Shotgun	69	2.9	75	3.0	70	2.8	73	3.3	64	3.0
Other firearm	3	0.1	0	0.0	0	0.0	3	0.1	8	0.4
Firearm - unknown type	123	5.2	136	5.5	58	2.4	109	4.9	214	10.1
Nonfirearm	652	27.4	636	25.6	637	25.9	614	27.6	623	29.5
Knife[1]	282	11.8	291	11.7	314	12.8	298	13.4	297	14.1
Blunt object[2]	104	4.4	78	3.1	77	3.1	94	4.2	111	5.3
Personal weapon[3]	148	6.2	138	5.6	130	5.3	118	5.3	120	5.7
All other	118	5.0	129	5.2	116	4.7	104	4.7	95	4.5
Rope[4]	49	2.1	30	1.2	33	1.3	29	1.3	21	1.0
Drugs	5	0.2	2	0.1	5	0.2	1	0.0	2	0.1
Other[5]	64	2.7	97	3.9	78	3.2	74	3.3	72	3.4

Type of weapon used (cont.)	2009		2010		2011		2012		2013		Percent change	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	2004-2013	2012-2013
Total including unknown	1,970		1,809		1,794		1,878		1,745			
Unknown	42		46		46		50		46			
Total known	1,928	100.0	1,763	100.0	1,748	100.0	1,828	100.0	1,699	100.0	-28.7	-7.1
Firearm	1,359	70.5	1,255	71.2	1,224	70.0	1,303	71.3	1,225	72.1	-29.2	-6.0
Handgun	1,018	52.8	952	54.0	863	49.4	899	49.2	808	47.6	-44.7	-10.1
All other firearms	341	17.7	303	17.2	361	20.7	404	22.1	417	24.5	55.6	3.2
Rifle	45	2.3	58	3.3	44	2.5	37	2.0	28	1.6	-61.6	-
Shotgun	49	2.5	43	2.4	51	2.9	52	2.8	47	2.8	-31.9	-9.6
Other firearm	3	0.2	2	0.1	4	0.2	6	0.3	4	0.2	-	-
Firearm - unknown type	244	12.7	200	11.3	262	15.0	309	16.9	338	19.9	174.8	9.4
Nonfirearm	569	29.5	508	28.8	524	30.0	525	28.7	474	27.9	-27.3	-9.7
Knife[1]	291	15.1	250	14.2	260	14.9	261	14.3	238	14.0	-15.6	-8.8
Blunt object[2]	102	5.3	82	4.7	86	4.9	96	5.3	76	4.5	-26.9	-20.8
Personal weapon[3]	107	5.5	103	5.8	98	5.6	87	4.8	92	5.4	-37.8	5.7
All other	69	3.6	73	4.1	80	4.6	81	4.4	68	4.0	-42.4	-16.0
Rope[4]	23	1.2	27	1.5	16	0.9	21	1.1	19	1.1	-	-
Drugs	1	0.1	2	0.1	1	0.1	2	0.1	3	0.2	-	-
Other[5]	45	2.3	44	2.5	63	3.6	58	3.2	46	2.7	-28.1	-20.7

Notes: Percentages may not add to subtotals or 100.0 because of rounding.
Dash indicates that a percent change is not calculated when the base number is less than 50.

[1] Any instrument used to cut or stab.
[2] Club, etc.
[3] Hands, feet, etc.
[4] Any instrument used to hang or strangle.
[5] Poison, arson, pellet gun, drowning, etc.

Table 22

HOMICIDE CRIMES, 2013

Gender and Race/Ethnic Group of Victim by Type of Weapon Used

Type of weapon used	Total	Gender		Race/ethnic group				
		Male	Female	White	Hispanic	Black	Other	Unknown
				Number				
Total including unknown	1,745	1,432	313	370	739	534	99	3
Unknown	46	28	18	20	19	6	1	0
Total known	1,699	1,404	295	350	720	528	98	3
Firearm	1,225	1,072	153	179	541	440	65	0
Handgun	808	709	99	104	342	316	46	0
All other firearms	417	363	54	75	199	124	19	0
Rifle	28	22	6	3	17	7	1	0
Shotgun	47	35	12	19	15	10	3	0
Other firearm	4	4	0	0	2	2	0	0
Firearm - unknown type	338	302	36	53	165	105	15	0
Nonfirearm	474	332	142	171	179	88	33	3
Knife[1]	238	177	61	78	107	39	13	1
Blunt object[2]	76	55	21	28	24	18	6	0
Personal weapon[3]	92	67	25	39	30	16	7	0
All other	68	33	35	26	18	15	7	2
Rope[4]	19	6	13	6	8	3	2	0
Drugs	3	1	2	3	0	0	0	0
Other[5]	46	26	20	17	10	12	5	2
				Percent based on total known				
Total known	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Firearm	72.1	76.4	51.9	51.1	75.1	83.3	66.3	-
Handgun	47.6	50.5	33.6	29.7	47.5	59.8	46.9	-
All other firearms	24.5	25.9	18.3	21.4	27.6	23.5	19.4	-
Rifle	1.6	1.6	2.0	0.9	2.4	1.3	1.0	-
Shotgun	2.8	2.5	4.1	5.4	2.1	1.9	3.1	-
Other firearm	0.2	0.3	0.0	0.0	0.3	0.4	0.0	-
Firearm - unknown type	19.9	21.5	12.2	15.1	22.9	19.9	15.3	-
Nonfirearm	27.9	23.6	48.1	48.9	24.9	16.7	33.7	-
Knife[1]	14.0	12.6	20.7	22.3	14.9	7.4	13.3	-
Blunt object[2]	4.5	3.9	7.1	8.0	3.3	3.4	6.1	-
Personal weapon[3]	5.4	4.8	8.5	11.1	4.2	3.0	7.1	-
All other	4.0	2.4	11.9	7.4	2.5	2.8	7.1	-
Rope[4]	1.1	0.4	4.4	1.7	1.1	0.6	2.0	-
Drugs	0.2	0.1	0.7	0.9	0.0	0.0	0.0	-
Other[5]	2.7	1.9	6.8	4.9	1.4	2.3	5.1	-

Notes: Percentages may not add to subtotals or 100.0 because of rounding.

Dash indicates that percent distributions are not calculated when the base number is less than 50.

[1] Any instrument used to cut or stab.

[2] Club, etc.

[3] Hands, feet, etc.

[4] Any instrument used to hang or strangle.

[5] Poison, arson, pellet gun, drowning, etc.

EXHIBIT 12

OFFICE OF THE ATTORNEY GENERAL - CALIFORNIA DEPARTMENT OF JUSTICE

2013 Firearms

Used in the Commission of Crimes

This report is available online at
http://oag.ca.gov/publications#crime

Division of Law Enforcement
Bureau of Forensic Services
916-227-3635

KAMALA D. HARRIS, ATTORNEY GENERAL

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Purpose

This report is prepared by the California Department of Justice, Bureau of Forensic Services (BFS), for the Legislature as directed by California Penal Code section 34200. The report details the specific types of firearms used in the commission of various crimes.

Scope

This report includes firearms examined during 2013 in the BFS Regional Criminalistics Laboratories.

Because BFS serves principally the rural areas of California, the data in this report may not represent gun-use trends within urban areas or within California as a whole.

Firearm Types (Figures 1 and 2)

The 105 qualifying firearms examined included 95 handguns (90.4 percent), six rifles (5.7 percent), four shotguns (3.8 percent), and no machine guns. Two of these firearms (0.1 percent) were assault weapons (as defined in California Penal Code sections 30510 and 30515) and one (0.9 percent) was classified as a short-barreled shotgun or rifle. The most commonly encountered caliber was 9mm Luger, followed by 40 S&W, and 380 Auto.

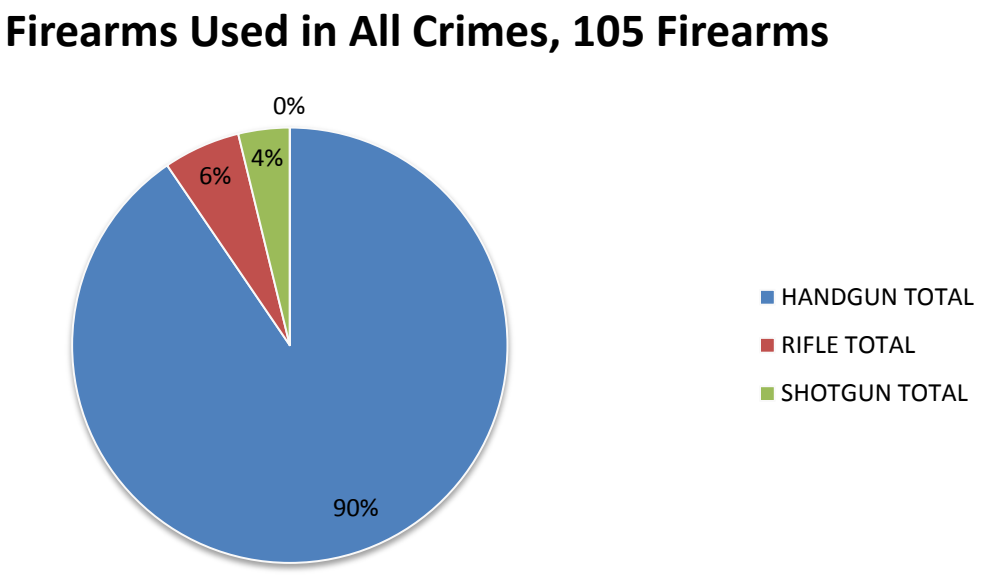


Figure 1

EXHIBIT 13

U.S. Department of Justice
Office of Justice Programs
Bureau of Justice Statistics

SPECIAL REPORT

MAY 2013 NCJ 241730

Firearm Violence, 1993-2011

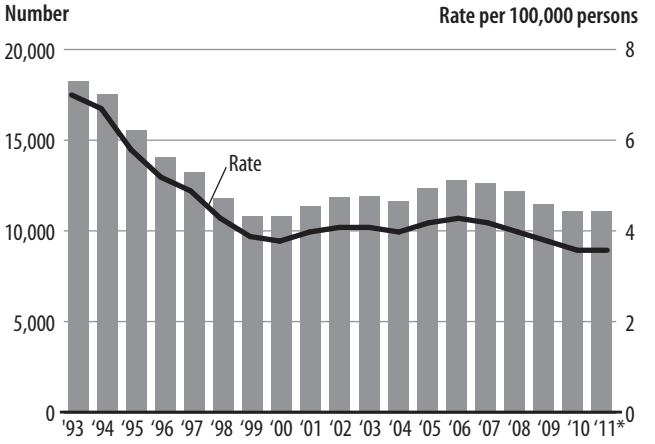
Michael Planty, Ph.D., and Jennifer L. Truman, Ph.D., *BJS Statisticians*

In 2011, a total of 478,400 fatal and nonfatal violent crimes were committed with a firearm **(table 1)**. Homicides made up about 2% of all firearm-related crimes. There were 11,101 firearm homicides in 2011, down by 39% from a high of 18,253 in 1993 **(figure 1)**. The majority of the decline in firearm-related homicides occurred between 1993 and 1998. Since 1999, the number of firearm homicides increased from 10,828 to 12,791 in 2006 before declining to 11,101 in 2011.

Nonfatal firearm-related violent victimizations against persons age 12 or older declined 70%, from 1.5 million in 1993 to 456,500 in 2004 **(figure 2)**. The number then fluctuated between about 400,000 to 600,000 through 2011.[1] While the number of firearm crimes declined over time, the percentage of all violence that involved a firearm did not change substantively, fluctuating between 6% and 9% over the same period. In 1993, 9% of all violence was committed with a firearm, compared to 8% in 2011.

[1]Many percentages and counts presented in this report are based on nonfatal firearm victimizations. Since firearm homicides accounted for about 2% of all firearm victimizations, when firearm homicides are included in the total firearm estimates, the findings do not change significantly.

FIGURE 1
Firearm homicides, 1993–2011



Note: Excludes homicides due to legal intervention and operations of war. See appendix table 1 for numbers and rates.

*Preliminary estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports*, 61(6).

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

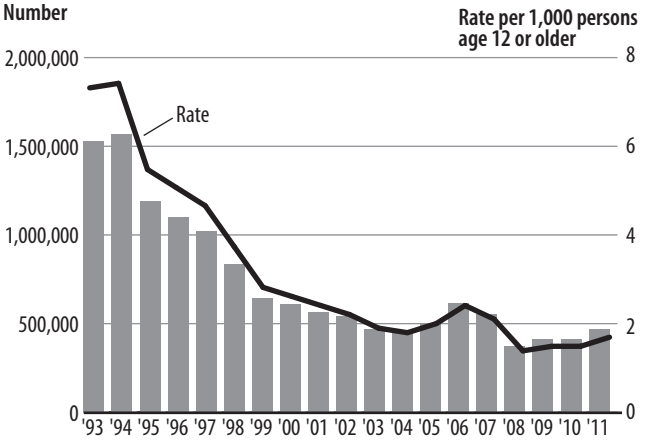
HIGHLIGHTS

- Firearm-related homicides declined 39%, from 18,253 in 1993 to 11,101 in 2011.
- Nonfatal firearm crimes declined 69%, from 1.5 million victimizations in 1993 to 467,300 victimizations in 2011.
- For both fatal and nonfatal firearm victimizations, the majority of the decline occurred during the 10-year period from 1993 to 2002.
- Firearm violence accounted for about 70% of all homicides and less than 10% of all nonfatal violent crime from 1993 to 2011.
- About 70% to 80% of firearm homicides and 90% of nonfatal firearm victimizations were committed with a handgun from 1993 to 2011.
- From 1993 to 2010, males, blacks, and persons ages 18 to 24 had the highest rates of firearm homicide.
- In 2007-11, about 23% of victims of nonfatal firearm crime were injured.
- About 61% of nonfatal firearm violence was reported to the police in 2007-11.
- In 2007-11, less than 1% of victims in all nonfatal violent crimes reported using a firearm to defend themselves during the incident.
- In 2004, among state prison inmates who possessed a gun at the time of offense, less than 2% bought their firearm at a flea market or gun show and 40% obtained their firearm from an illegal source.

The primary source of information on firearm-related homicides was obtained from mortality data based on death certificates in the National Vital Statistics System of the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention's (CDC) Web-based Injury Statistics Query and Reporting System (WISQARS). These mortality data include causes of death reported by attending physicians, medical examiners, and coroners, and demographic information about decedents reported by funeral directors who obtain that information from family members and other informants. The NCHS collects, compiles, verifies, and prepares these data for release to the public.

The estimates of nonfatal violent victimization are based on data from the Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS), which collects information on nonfatal crimes against persons age 12 or older reported and not reported to the police from a nationally representative sample of U.S. households. Homicide rates are presented per 100,000 persons and the nonfatal victimization rates are presented per 1,000 persons age 12 or older. Additional information on firearm violence in this report comes from the School-Associated Violent Deaths Surveillance Study (SAVD), the FBI's Supplemental Homicide Reports (SHR), the Survey of Inmates in State Correctional Facilities (SISCF), and the Survey of Inmates in Federal Correctional Facilities (SIFCF). Each source provides different information about victims and incident characteristics. Estimates are shown for different years based on data availability and measures of reliability. (For more information about these sources, see *Methodology*.)

FIGURE 2
Nonfatal firearm victimizations, 1993–2011



Note: See appendix table 2 for numbers, rates, and standard errors.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

TABLE 1
Criminal firearm violence, 1993–2011

		Number				Percent	
Year	Total fatal and nonfatal firearm violence	Firearm homicides	Nonfatal firearm victimizations[a]	Nonfatal firearm incidents[b]	Rate of nonfatal firearm victimization[c]	All violence involving firearms	All firearm violence that was homicide
1993	1,548,000	18,253	1,529,700	1,222,700	7.3	9.2%	1.2%
1994	1,585,700	17,527	1,568,200	1,287,200	7.4	9.3	1.1
1995	1,208,800	15,551	1,193,200	1,028,900	5.5	7.9	1.3
1996	1,114,800	14,037	1,100,800	939,500	5.1	7.9	1.3
1997	1,037,300	13,252	1,024,100	882,900	4.7	7.7	1.3
1998	847,200	11,798	835,400	673,300	3.8	7.0	1.4
1999	651,700	10,828	640,900	523,600	2.9	6.1	1.7
2000	621,000	10,801	610,200	483,700	2.7	7.3	1.7
2001	574,500	11,348	563,100	507,000	2.5	7.7	2.0
2002	551,800	11,829	540,000	450,800	2.3	7.4	2.1
2003	479,300	11,920	467,300	385,000	2.0	6.2	2.5
2004	468,100	11,624	456,500	405,800	1.9	6.9	2.5
2005	515,900	12,352	503,500	446,400	2.1	7.4	2.4
2006	627,200	12,791	614,400	552,000	2.5	7.4	2.0
2007	567,400	12,632	554,800	448,400	2.2	8.3	2.2
2008	383,500	12,179	371,300	331,600	1.5	6.0	3.2
2009	421,600	11,493	410,100	383,400	1.6	7.4	2.7
2010	426,100	11,078	415,000	378,800	1.6	8.6	2.6
2011[d]	478,400	11,101	467,300	414,600	1.8	8.2	2.3

Note: See appendix table 3 for standard errors.

[a]A victimization refers to a single victim that experienced a criminal incident.

[b]An incident is a specific criminal act involving one or more victims or victimizations.

[c]Per 1,000 persons age 12 or older.

[d]Preliminary homicide estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports,* 61(6).

Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

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Trend estimates of nonfatal firearm violence are presented as annual 1-year averages or 2-year rolling averages, as noted in each table or figure. For ease of presentation, 2-year estimates are referenced according to the most recent year. For example, estimates reported for 2011 represent the average estimates for 2010 and 2011. Other tables in this report focus on a single 5-year aggregate period from 2007 through 2011. These approaches—using rolling averages and aggregating years—increase the reliability and stability of estimates, which facilitiates comparisons over time and between subgroups.

The majority of firearm crimes were committed with a handgun

From 1993 to 2011, about 60% to 70% of homicides were committed with a firearm (table 2). Over the same period, between 6% and 9% of all nonfatal violent victimizations were committed with a firearm, with about 20% to 30% of robberies and 22% to 32% of aggravated assaults involving a firearm.

Handguns accounted for the majority of both homicide and nonfatal firearm violence (table 3). A handgun was used in about 83% of all firearm homicides in 1994, compared to 73% in 2011. Other types of firearms, such as shotguns and rifles, accounted for the remainder of firearm homicides. For nonfatal firearm violence, about 9 in 10 were committed with a handgun, and this remained stable from 1994 to 2011.

TABLE 2

Percent of violence involving a firearm, by type of crime, 1993–2011

Year	Homicide	Nonfatal violence[a]	Robbery	Aggravated assault
1993	71.2%	9.1%	22.3%	30.7%
1994	71.4	9.2	27.1	31.9
1995	69.0	7.8	27.3	28.0
1996	68.0	7.8	24.6	25.7
1997	68.0	7.6	19.9	27.0
1998	65.9	7.0	20.1	26.5
1999	64.1	6.0	19.2	22.4
2000	64.4	7.2	21.1	26.6
2001[b]	55.9	7.5	29.5	26.0
2002	67.1	7.3	23.4	28.7
2003	67.2	6.1	22.4	22.2
2004	67.0	6.8	19.7	23.6
2005	68.2	7.2	21.8	25.7
2006	68.9	7.3	16.6	24.3
2007	68.8	8.1	20.0	32.6
2008	68.3	5.8	19.6	24.6
2009	68.4	7.2	27.0	23.2
2010	68.1	8.4	24.7	25.4
2011[c]	69.6	8.0	25.7	30.6

Note: See appendix table 4 for standard errors.

[a]Nonfatal violence includes rape, sexual assault, robbery, aggravated and simple assault. A small percentage of rape and sexual assaults involved firearms but are not shown in table due to small sample sizes.

[b]The homicide estimates that occurred as a result of the events of September 11, 2001, are included in the total number of homicides.

[c]Preliminary homicide estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports*, 61(6).

Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

TABLE 3

Criminal firearm violence, by type of firearm, 1994–2011

	Homicide				Nonfatal violence					
	Handgun		Other firearm*		Handgun		Other firearm*		Gun type unknown	
Year	Annual number	Percent	Annual number	Percent	Average annual number	Percent	Average annual number	Percent	Average annual number	Percent
1994	13,510	82.7%	2,830	17.3%	1,387,100	89.5%	150,200	9.7%	11,700 !	0.8% !
1995	12,090	81.9	2,670	18.1	1,240,200	89.8	132,800	9.6	7,700 !	0.6 !
1996	10,800	81.1	2,510	18.9	999,600	87.1	141,000	12.3	6,400 !	0.6 !
1997	9,750	78.8	2,630	21.2	894,200	84.2	159,800	15.0	8,400 !	0.8 !
1998	8,870	80.4	2,160	19.6	783,400	84.3	141,100	15.2	5,300 !	0.6 !
1999	8,010	78.8	2,150	21.2	659,600	89.4	74,100	10.0	4,500 !	0.6 !
2000	8,020	78.6	2,190	21.4	555,800	88.8	65,300	10.4	4,500 !	0.7 !
2001	7,820	77.9	2,220	22.1	506,600	86.3	65,900	11.2	14,100 !	2.4 !
2002	8,230	75.8	2,620	24.2	471,600	85.5	63,200	11.5	16,700 !	3.0 !
2003	8,890	80.3	2,180	19.7	436,100	86.6	53,200	10.6	14,400 !	2.9 !
2004	8,330	78.0	2,350	22.0	391,700	84.8	53,400	11.6	16,900 !	3.7 !
2005	8,550	75.1	2,840	24.9	410,600	85.5	56,200	11.7	13,200 !	2.8 !
2006	9,060	77.0	2,700	23.0	497,400	89.0	47,600	8.5	14,000 !	2.5 !
2007	8,570	73.6	3,080	26.4	509,700	87.2	65,600	11.2	9,300 !	1.6 !
2008	7,930	71.8	3,120	28.2	400,700	86.5	57,400	12.4	5,000 !	1.1 !
2009	7,370	71.3	2,970	28.7	348,700	89.2	37,600	9.6	4,400 !	1.1 !
2010	6,920	69.6	3,030	30.4	382,100	92.6	26,700	6.5	3,800 !	0.9 !
2011	7,230	72.9	2,690	27.1	389,400	88.3	49,700	11.3	2,100 !	0.5 !

Note: Nonfatal violence data based on 2-year rolling averages beginning in 1993. Homicide data are presented as annual estimates. See appendix table 5 for standard errors.

*Includes rifle, shotgun, and other types of firearms.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and FBI, Supplementary Homicide Reports, 1994–2011.

APPENDIX TABLE 5

Standard errors for table 3: Criminal firearm violence, by type of firearm, 1994–2011

	Nonfatal violence					
	Handgun		Other firearm		Gun type unknown	
Year	Number	Percent	Number	Percent	Number	Percent
1994	94,313	1.8%	26,713	1.6%	6,951	0.4%
1995	77,109	1.6	21,832	1.5	4,899	0.4
1996	66,253	1.9	21,995	1.8	4,366	0.4
1997	68,335	2.3	25,950	2.2	5,534	0.5
1998	68,151	2.6	25,521	2.5	4,522	0.5
1999	63,909	2.5	18,379	2.3	4,189	0.6
2000	57,439	2.8	17,323	2.6	4,260	0.7
2001	53,625	3.1	17,115	2.7	7,586	1.3
2002	48,977	3.1	16,006	2.7	7,929	1.4
2003	46,655	3.2	14,670	2.7	7,392	1.4
2004	45,846	3.6	15,535	3.1	8,509	1.8
2005	50,621	3.8	17,269	3.3	8,153	1.7
2006	56,341	3.1	15,872	2.7	8,415	1.5
2007	56,630	3.2	18,308	2.9	6,598	1.1
2008	48,199	3.6	16,622	3.3	4,666	1.0
2009	47,110	3.7	14,157	3.4	4,688	1.2
2010	50,636	3.1	11,837	2.7	4,313	1.0
2011	43,185	3.1	13,868	2.9	2,676	0.6

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 6

Numbers and rates for figure 3: Firearm homicides, by sex, 1993–2010

	Number		Rate per 100,000 persons	
Year	Male	Female	Male	Female
1993	15,228	3,025	12.0	2.3
1994	14,766	2,761	11.5	2.1
1995	13,021	2,530	10.0	1.9
1996	11,735	2,302	8.9	1.7
1997	11,147	2,105	8.4	1.5
1998	9,771	2,027	7.2	1.4
1999	8,944	1,884	6.5	1.3
2000	9,006	1,795	6.5	1.3
2001	9,532	1,816	6.8	1.3
2002	9,899	1,930	7.0	1.3
2003	10,126	1,794	7.1	1.2
2004	9,921	1,703	6.9	1.1
2005	10,561	1,791	7.3	1.2
2006	10,886	1,905	7.4	1.3
2007	10,767	1,865	7.3	1.2
2008	10,361	1,818	6.9	1.2
2009	9,615	1,878	6.4	1.2
2010	9,340	1,738	6.2	1.1

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 7

Rates and standard errors for figure 4: Nonfatal firearm violence, by sex, 1994–2011

	Male		Female	
Year	Rate*	Standard error	Rate*	Standard error
1994	10.1	0.6	4.7	0.4
1995	9.3	0.5	3.7	0.3
1996	7.6	0.4	3.1	0.2
1997	6.4	0.4	3.5	0.3
1998	5.5	0.4	3.0	0.3
1999	4.4	0.4	2.3	0.2
2000	3.7	0.3	1.9	0.2
2001	3.5	0.3	1.7	0.2
2002	2.9	0.3	1.9	0.2
2003	2.7	0.2	1.6	0.2
2004	2.5	0.2	1.4	0.2
2005	2.5	0.3	1.4	0.2
2006	2.8	0.3	1.8	0.2
2007	2.8	0.3	1.9	0.2
2008	2.2	0.2	1.5	0.2
2009	2.0	0.2	1.1	0.2
2010	2.0	0.2	1.2	0.2
2011	1.9	0.2	1.6	0.2

*Per 1,000 persons age 12 or older.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

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EXHIBIT 14

California Violent Death Data

Data Source: All data sources
Year: 2005 to 2009
Death Type: Suicide
Event Type: All incidents
Residents of California
Ages: All ages
Sex: Male and Female
Marital Status: Any
Veteran Status: Any
Race/Ethnicity: All Race/Ethnicity
Weapon/Mechanism: Handguns Only

There were 1,042 cases found.

Source: California Department of Public Health, California Violent Death Reporting System (Cal-VDRS) and California Electronic Violent Death Reporting System (Cal-EVDRS)

Prepared by: Injury Surveillance and Epidemiology Section, Safe and Active Communities Branch, CDPH and California Research Bureau, State Library
Report generated from http://epicenter.cdph.ca.gov on: February 20, 2015

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EXHIBIT 15

John Henry Sloan et al.†

HANDGUN REGULATIONS, CRIME, ASSAULTS, AND HOMICIDE: A TALE OF TWO CITIES

Abstract To investigate the associations among handgun regulations, assault and other crimes, and homicide, we studied robberies, burglaries, assaults, and homicides in Seattle, Washington, and Vancouver, British Columbia, from 1980 through 1986.

Although similar to Seattle in many ways, Vancouver has adopted a more restrictive approach to the regulation of handguns. During the study period, both cities had similar rates of burglary and robbery. In Seattle, the annual rate of assault was modestly higher than that in Vancouver (simple assault: relative risk, 1.18; 95 percent confidence interval, 1.15 to 1.20; aggravated assault: relative risk, 1.16; 95 percent confidence interval, 1.12 to 1.19).†† However, the rate of assaults involving firearms was seven times higher in Seattle than in Vancouver. Despite similar overall rates of criminal activity and assault, the relative risk of death from homicide, adjusted for age and sex, was significantly higher in Seattle than in Vancouver (relative risk, 1.63; 95 percent confidence interval, 1.28 to 2.08). Virtually all of this excess risk was explained by a 4.8-fold higher risk of being murdered with a handgun in Seattle as compared with Vancouver. Rates of homicide by means other than guns were not substantially different in the two study communities.

We conclude that restricting access to handguns may reduce the rate of homicide in a community (*N. Engl. J Med.* 1988; 319:1256–62).

Approximately 20,000 persons are murdered in the United States each year, making homicide the 11th leading cause of death and the 6th leading cause of the loss of potential years of life before age 65.[1-3] In the United States between 1960 and 1980, the death rate from homicide by means other than firearms increased by 85 percent. In contrast, the death rate from homicide by firearms during this same period increased by 160 percent.[3]

Approximately 60 percent of homicides each year involve firearms. Handguns alone account for three fourths of all gun-related homicides.[4] Most homicides occur as a result of assaults during arguments or altercations; a minority occur during the commission of a robbery or other felony.[2,4] Baker has noted that in cases of assault, people tend to reach for weapons that are readily available.[5] Since attacks with guns more often end in death than attacks with knives, and since handguns are disproportionately involved in

From the *New England Journal of Medicine* (November 10, 1988) The authors' notes are listed at the end as "References," as in the style of *N Engl J Med*

† John Henry Sloan, M D , M P H.; Arthur L. Kellermann, M D , M P H., Donald T Reay, M D., James A Ferris, M D , Thomas Koepsell, M D., M P H ; Frederick P. Rivara, M D , M P H.; Charles Rice, M D , Laurel Gray, M.D., and James LoGerfo, M D , M P H

†† A statistical method for expressing the likelihood of error, that is, in this instance there is a 95 percent chance that the risk of simple assault in Seattle relative to that in Vancouver, which the authors calculate to be 1 18, will fall between 1 15 and 1.2 [Editors]

intentional shootings, some have argued that restricting access to handguns could substantially reduce our annual rate of homicide.[5-7]

To support this view, advocates of handgun control frequently cite data from countries like Great Britain and Japan, where the rates of both handgun ownership and homicide are substantially lower than those in the United States.[8] Rates of injury due to assault in Denmark are comparable to those in northeastern Ohio, but the Danish rate of homicide is only one fifth as high as Ohio's.[5,6] In Denmark, the private ownership of guns is permitted only for hunting, and access to handguns is tightly restricted.[6]

Opponents of gun control counter with statistics from Israel and Switzerland, where the rates of gun ownership are high but homicides are relatively uncommon.[9] However, the value of comparing data from different countries to support or refute the effectiveness of gun control is severely compromised by the large number of potentially confounding social, behavioral, and economic factors that characterize large national groups. To date, no study has been able to separate the effects of handgun control from differences among populations in terms of socioeconomic status, aggressive behavior, violent crime, and other factors.[7] To clarify the relation between firearm regulations and community rates of homicide, we studied two large cities in the Pacific Northwest: Seattle, Washington, and Vancouver, British Columbia. Although similar in many ways, these two cities have taken decidedly different approaches to handgun control.

METHODS

Study Sites

Seattle and Vancouver are large port cities in the Pacific Northwest. Although on opposite sides of an international border, they are only 140 miles apart, a three-hour drive by freeway. They share a common geography, climate, and history. Citizens in both cities have attained comparable levels of schooling and have almost identical rates of unemployment. When adjusted to U.S. dollars, the median annual income of a household in Vancouver exceeds that in Seattle by less than $500. Similar percentages of households in both cities have incomes of less than $10,000 (U.S.) annually. Both cities have large white majorities. However, Vancouver has a larger Asian population, whereas Seattle has larger black and Hispanic minorities (Table 1).[10,11] The two communities also share many cultural values and interests. Six of the top nine network television programs in Seattle are among the nine most watched programs in Vancouver.[12,13]

Firearm Regulations

Although similar in many ways, Seattle and Vancouver differ markedly in their approaches to the regulation of firearms (Table 2). In Seattle, handguns may be purchased legally for self-defense in the street or at home. After a 30-day waiting period, a permit can be obtained to carry a handgun as a concealed weapon. The recreational use of handguns is minimally restricted.[15]

TABLE 1
SOCIOECONOMIC CHARACTERISTICS AND RACIAL AND ETHNIC COMPOSITION OF THE POPULATIONS IN SEATTLE AND VANCOUVER

Index	*Seattle*	*Vancouver*
1980 Population	493,846	415,220
1985–1986 Population estimate	491,400	430,826
Unemployment rate (%)	5.8	6.0
High-school graduates (%)	79.0	66.0
Median household income (U.S. dollars)	16,254	16,681
Households with incomes ≤$10,000 (U.S.) (%)	30.6	28.9
Ethnic and racial groups (%)		
White (non-Hispanic)	79.2	75.6
Asian	7.4	22.1
Black	9.5	0.3
Hispanic	2.6	0.5
Native North American	1.3	1.5

In Vancouver, self-defense is not considered a valid or legal reason to purchase a handgun. Concealed weapons are not permitted. Recreational uses of handguns (such as target shooting and collecting) are regulated by the province, and the purchase of a handgun requires a restricted-weapons permit. A permit to carry a weapon must also be obtained in order to transport a handgun, and these weapons can be discharged only at a licensed shooting club. Handguns can be transported by car, but only if they are stored in the trunk in a locked box.[16,17]

Although they differ in their approach to firearm regulations, both cities aggressively enforce existing gun laws and regulations, and convictions for gun-related offenses carry similar penalties. For example, the commission of a class A felony (such as murder or robbery) with a firearm in Washington State adds a minimum of two years of confinement to the sentence for the felony.[18] In the Province of British Columbia, the same offense generally results in 1 to 14 years of imprisonment in addition to the felony sentence.[16] Similar percentages of homicides in both communities eventually lead to arrest and police charges. In Washington, under the Sentencing Reform Act of 1981, murder in the first degree carries a minimum sentence of 20 years of confinement.[19] In British Columbia, first-degree murder carries a minimum sentence of 25 years, with a possible judicial parole review after 15 years.[20] Capital punishment was abolished in Canada during the 1970s.[21] In Washington State, the death penalty may be invoked in cases of aggravated first-degree murder, but no one has been executed since 1963.

Rates of Gun Ownership

Because direct surveys of firearm ownership in Seattle and Vancouver have never been conducted, we assessed the rates of gun ownership indirectly by two independent methods. First, we obtained from the Firearm

TABLE 2
REGULATION AND OWNERSHIP OF FIREARMS AND LAW-ENFORCEMENT ACTIVITY IN SEATTLE AND VANCOUVER

	Seattle	*Vancouver*
Regulations		
Handguns	Concealed-weapons permit is required to carry a gun for self-defense on the street; none is required for self-defense in the home. Registration of handguns is not mandatory for private sales.	Restricted-weapons permit is required for sporting and collecting purposes. Self-defense in the home or street is not legally recognized as a reason for possession of a handgun. Handguns must be registered.
Long guns (rifles, shotguns)	Long guns are not registered.	Firearm-acquisition certificate is required for purchase. Long guns are not registered.
Law enforcement and sentencing		
Additional sentence for commission of a class A felony with a firearm	Minimum of 2 extra years	1 to 14 extra years.
Percent of firearm-related homicides that result in police charges (police estimate)	80 to 90%	80 to 90%
Minimum jail sentence for first-degree murder	20 years in prison.	25 years in prison (parole is possible after 15 years).
Status of capital punishment	Legal, though no one has been executed since 1963.	Abolished.
Prevalence of weapons		
Total concealed-weapons permits issued (March 1984 to March 1988)	15,289	–
Total restricted-weapons permits issued	–	4137

Permit Office of the Vancouver police department a count of the restricted-weapons permits issued in Vancouver between March 1984 and March 1988 and compared this figure with the total number of concealed-weapons permits issued in Seattle during the same period, obtained from the Office of Business and Profession Administration, Department of Licensing, State of Washington. Second, we used Cook's gun prevalence index, a previously validated measure of intercity differences in the prevalence of gun ownership.[14] This index is based on data from 49 cities in the United States and correlates each city's rates of suicide and assaultive homicide involving firearms with survey-based estimates of gun ownership in each city. Both methods indicate that firearms are far more commonly owned in Seattle than in Vancouver (Table 2).

Identification and Definition of Cases

From police records, we identified all the cases of robbery, burglary, and assault (both simple and aggravated) and all the homicides that occurred in Seattle or Vancouver between January 1, 1980, and December 31, 1986. In defining cases, we followed the guidelines of the U.S. Federal Bureau of Investigation's uniform crime reports (UCR).[22] The UCR guidelines define aggravated assault as an unlawful attack by one person on another for the purpose of inflicting severe or aggravated bodily harm. Usually this type of assault involves the actual or threatened use of a deadly weapon. Simple assault is any case of assault that does not involve the threat or use of a deadly weapon or result in serious or aggravated injuries.

A homicide was defined as the willful killing of one human being by another. This category included cases of premeditated murder, intentional killing, and aggravated assault resulting in death. "Justifiable homicide," as defined by the UCR guidelines, was limited to cases of the killing of a felon by a law-enforcement officer in the line of duty or the killing of a felon by a private citizen during the commission of a felony.[22] Homicides that the police, the prosecuting attorney, or both thought were committed in self-defense were also identified and noted separately.

Statistical Analysis

From both Seattle and Vancouver, we obtained annual and cumulative data on the rates of aggravated assault, simple assault, robbery, and burglary. Cases of aggravated assault were categorized according to the weapon used. Data on homicides were obtained from the files of the medical examiner or coroner in each community and were supplemented by police case files. Each homicide was further categorized according to the age, sex, and race or ethnic group of the victim, as well as the weapon used.

Population-based rates of simple assault, aggravated assault, robbery, burglary, and homicide were then calculated and compared. These rates are expressed as the number per 100,000 persons per year and, when possible, are further adjusted for any differences in the age and sex of the victims. Unadjusted estimates of relative risk and 95 percent confidence intervals were calculated with use of the maximum-likelihood method and are based

on Seattle's rate relative to Vancouver's.[23] Age-adjusted relative risks were estimated with use of the Mantel-Haenszel summary odds ratio.[24]

RESULTS

During the seven-year study period, the annual rate of robbery in Seattle was found to be only slightly higher than that in Vancouver (relative risk, 1.09; 95 percent confidence interval, 1.08 to 1.12). Burglaries, on the other hand, occurred at nearly identical rates in the two communities (relative risk, 0.99; 95 percent confidence interval, 0.98 to 1.00). During the study period, 18,925 cases of aggravated assault were reported in Seattle, as compared with 12,034 cases in Vancouver. When the annual rates of assault in the two cities were compared for each year of the study, we found that the two communities had similar rates of assault during the first four years of the study. In 1984, however, reported rates of simple and aggravated assault began to climb sharply in Seattle, whereas the rates of simple and aggravated assault remained relatively constant in Vancouver (Fig. 1). This change coincided with the enactment that year of the Domestic Violence Protection Act by the Washington State legislature. Among other provisions, this law required changes in reporting and arrests in cases of domestic violence.[25] It is widely believed that this law and the considerable media attention that followed its passage resulted in dramatic increases in the number of incidents reported and in related enforcement costs in Seattle.[26] Because in Vancouver there was no similar legislative initiative requiring police to change their reporting methods, we restricted our comparison of the data on assaults to the first four years of our study (1980 through 1983) (Fig. 1).

During this four-year period, the risk of being a victim of simple assault in Seattle was found to be only slightly higher than that in Vancouver (relative risk, 1.18; 95 percent confidence interval, 1.15 to 1.20). The risk of aggravated assault in Seattle was also only slightly higher than in Vancouver (relative risk, 1.16; 95 percent confidence interval, 1.12 to 1.19). However, when aggravated assaults were subdivided by the type of weapon used and the mechanism of assault, a striking pattern emerged. Although both cities reported almost identical rates of aggravated assault involving knives, other dangerous weapons, or hands, fists, and feet, firearms were far more likely to have been used in cases of assault in Seattle than in Vancouver (Table 3). In fact, all the difference in the relative risk of aggravated assault between these two communities was due to Seattle's 7.7-fold higher rate of assaults involving firearms (Fig. 2).

Over the whole seven-year study period, 388 homicides occurred in Seattle (11.3 per 100,000 person-years). In Vancouver, 204 homicides occurred during the same period (6.9 per 100,000 person-years). After adjustment for differences in age and sex between the populations, the relative risk of being a victim of homicide in Seattle, as compared with Vancouver, was found to be 1.63 (95 percent confidence interval, 1.28 to 2.08). This difference is highly unlikely to have occurred by chance.

When homicides were subdivided by the mechanism of death, the rate of homicide by knives and other weapons (excluding firearms) in Seattle was

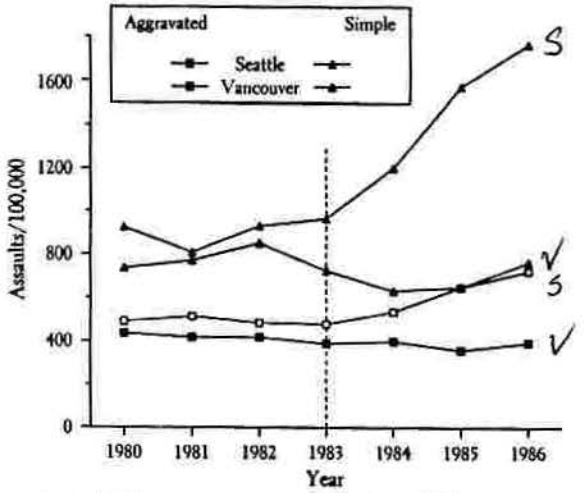

Figure 1. Rates of aggravated and simple assault in Seattle and Vancouver, 1980 through 1986. The dotted line indicates the passage of the Domestic Violence Protection Act in Washington State in 1984.

TABLE 3
ANNUAL CRUDE RATES AND RELATIVE RISKS OF AGGRAVATED ASSAULT, SIMPLE ASSAULT, ROBBERY, BURGLARY, AND HOMICIDE IN SEATTLE AND VANCOUVER, 1980 THROUGH 1986[a]

Crime	Period	Seattle	Vancouver	Relative Risk	95% CI
		no./100,000			
Robbery	1980–1986	492.2	450.9	1.09	1.08–1.12
Burglary	1980–1986	2952.7	2985.7	0.99	0.98–1.00
Simple assault	1980–1983	902	767.7	1.18	1.15–1.20
Aggrevated assault	1980–1983	486.5	420.5	1.16	1.12–1.19
Firearms		87.9	11.4	7.70	6.70–8.70
Knives		78.1	78.9	0.99	0.92–1.07
Other		320.6	330.2	0.97	0.94–1.01
Homicides	1980–1986	11.3	6.9	1.63	1.38–1.93
Firearms		4.8	1.0	5.08	3.54–7.27
Knives		3.1	2.5	1.33	0.99–1.78
Other		3.4	2.5	1.33	0.99–1.78

[a] CI denotes confidence interval. The "crude rate" for these crimes is the number of events occurring in a given population over a given time period. The relative risks shown are for Seattle in relation to Vancouver.

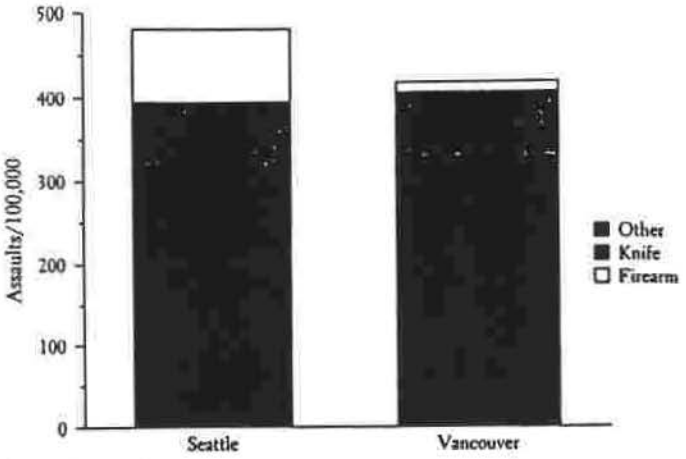

Figure 2. Annual rates of aggravated assault in Seattle and Vancouver, 1980 through 1983, according to the Weapon Used. "Other" includes blunt instruments, other dangerous weapons, and hands, fists, and feet.

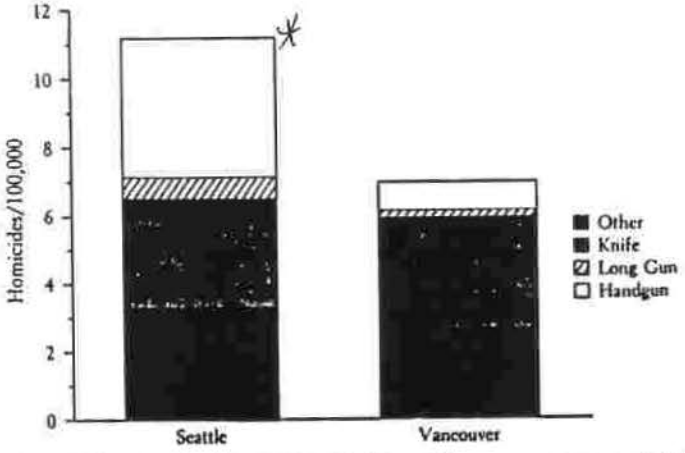

Figure 3. Annual rates of homicide in Seattle and Vancouver, 1980 through 1986, according to the Weapon Used. "Other" includes blunt instruments, other dangerous weapons, and hands, fists, and feet.

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found to be almost identical to that in Vancouver (relative risk, 1.08; 95 percent confidence interval, 0.89 to 1.32) (Fig. 3). Virtually all of the increased risk of death from homicide in Seattle was due to a more than fivefold higher rate of homicide by firearms (Table 3). Handguns, which accounted for roughly 85 percent of the homicides involving firearms in both communities, were 4.8 times more likely to be used in homicides in Seattle than in Vancouver.

To test the hypothesis that the higher rates of homicide in Seattle might be due to more frequent use of firearms for self-protection, we examined all the homicides in both cities that were ruled "legally justifiable" or were determined to have been committed in self-defense. Thirty-two such homicides occurred during the study period, 11 of which involved police intervention. After the exclusion of justifiable homicide by police, 21 cases of homicide by civilians acting in self-defense or in other legally justifiable ways remained, 17 of which occurred in Seattle and 4 of which occurred in Vancouver (relative risk, 3.64; 95 percent confidence interval, 1.32 to 10.06). Thirteen of these cases (all of which occurred in Seattle) involved firearms. The exclusion of all 21 cases (which accounted for less than 4 percent of the homicides during the study interval) had little overall effect on the relative risk of homicide in the two communities (age and sex-adjusted relative risk, 1.57; 95 percent confidence interval, 1.22 to 2.01).

When homicides were stratified by the race or ethnic group of the victim, a complex picture emerged (Table 4). The homicide rates in Table 4 were adjusted for age to match the 1980 U.S. population. This technique permits fairer comparisons among racial and ethnic groups with differing age compositions in each city. The relative risk for each racial or ethnic group, however, was estimated with use of the Mantel-Haenszel summary odds ratio.[24] This method, in effect, uses a different set of weights for the various age strata, depending on the distribution of persons among the age strata for that racial or ethnic group only. Hence, these estimates of relative risk differ slightly from a simple quotient of the age-adjusted rates.

Whereas similar rates of death by homicide were noted for whites in both cities, Asians in Seattle had higher rates of death by homicide than their counterparts in Vancouver. This difference persisted even after the exclusion of the 13 persons who died in the Wah Mee gambling club massacre in Seattle in 1983. Blacks and Hispanics in Seattle had higher relative risks of death by homicide than blacks and Hispanics in Vancouver, but the confidence intervals were very wide, given the relatively small size of both minorities in Vancouver. Only one black and one Hispanic were killed in Vancouver during the study period. Native Americans had the highest rates of death by homicide in both cities.

DISCUSSION

Previous studies of the effectiveness of gun control have generally compared rates of homicide in nations with different approaches to the regulation of firearms.[7] Unfortunately, the validity of these studies has been compromised by the large number of confounding factors that characterize national

TABLE 4
ANNUAL AGE-ADJUSTED HOMICIDE RATES AND RELATIVE RISKS OF DEATH BY HOMICIDE IN SEATTLE AND VANCOUVER, 1980 THROUGH 1986, ACCORDING TO THE RACE OR ETHNIC GROUP OF THE VICTIM[a]

Race or Ethnic Group	Seattle	Vancouver	Relative Risk	95% CI
	no./100,000			
White (non-Hispanic)	6.2	6.4	1	0.8–1.2
Asian	15.0	4.1	3.5	2.1–5.7
Excluding Wah Mee murders	9.5	—	2.3	1.4–4.0
Black	36.6	9.5	2.8	0.4–20.4
Hispanic	26.9	7.9	5	0.7–34.3
Native American	64.9	71.3	0.9	0.5–1.5

[a] CI denotes confidence interval. The relative risks shown are for Seattle in relation to Vancouver.

groups. We sought to circumvent this limitation by focusing our analysis on two demographically comparable and physically proximate cities with markedly different approaches to handgun control. In many ways, these two cities have more in common with each other than they do with other major cities in their respective countries. For example, Seattle's homicide rate is consistently half to two thirds that reported in cities such as Chicago, Los Angeles, New York, and Houston,[4] whereas Vancouver experiences annual rates of homicide two to three times higher than those reported in Ottawa, Toronto, and Calgary (Canadian Centre for Justice Statistics, Homicide Program, Ottawa: unpublished data).

In order to exclude the possibility that Seattle's higher homicide rate may be explained by higher levels of criminal activity or aggressiveness in its population, we compared the rates of burglary, robbery, simple assault, and aggravated assault in the two communities. Although we observed a slightly higher rate of simple and aggravated assault in Seattle, these differences were relatively small—the rates in Seattle were 16 to 18 percent higher than those reported in Vancouver during a period of comparable case reporting. Virtually all of the excess risk of aggravated assault in Seattle was explained by a sevenfold higher rate of assaults involving firearms. Despite similar rates of robbery and burglary and only small differences in the rates of simple and aggravated assault, we found that Seattle had substantially higher rates of homicide than Vancouver. Most of the excess mortality was due to an almost fivefold higher rate of murders with handguns in Seattle.

Critics of handgun control have long claimed that limiting access to guns will have little effect on the rates of homicide, because persons who are intent on killing others will only work harder to acquire a gun or will kill by other means.[7,27] If the rate of homicide in a community were influenced more by the strength of intent than by the availability of weapons, we might have expected the rate of homicides with weapons other than guns to have

been higher in Vancouver than in Seattle, in direct proportion to any decrease in Vancouver's rate of firearm homicides. This was not the case. During the study interval, Vancouver's rate of homicides with weapons other than guns was not significantly higher than that in Seattle, suggesting that few would-be assailants switched to homicide by other methods.

Ready access to handguns has been advocated by some as an important way to provide law-abiding citizens with an effective means to defend themselves.[27-29] Were this true, we might have expected that much of Seattle's excess rate of homicides, as compared with Vancouver's, would have been explained by a higher rate of justifiable homicides and killings in self-defense by civilians. Although such homicides did occur at a significantly higher rate in Seattle than in Vancouver, these cases accounted for less than 4 percent of the homicides in both cities during the study period. When we excluded cases of justifiable homicide or killings in self-defense by civilians from our calculation of relative risk, our results were almost the same.

It also appears unlikely that differences in law-enforcement activity accounted for the lower homicide rate in Vancouver. Suspected offenders are arrested and cases are cleared at similar rates in both cities. After arrest and conviction, similar crimes carry similar penalties in the courts in Seattle and Vancouver.

We found substantial differences in the risk of death by homicide according to race and ethnic group in both cities. In the United States, blacks and Hispanics are murdered at substantially higher rates than whites.[2] Although the great majority of homicides in the United States involve assailants of the same race or ethnic group, current evidence suggests that socioeconomic status plays a much greater role in explaining racial and ethnic differences in the rate of homicide than any intrinsic tendency toward violence.[2,30,31] For example, Centerwall has shown that when household crowding is taken into account, the rate of domestic homicide among blacks in Atlanta, Georgia, is no higher than that of whites living in similar conditions.[32] Likewise, a recent study of childhood homicide in Ohio found that once cases were stratified by socioeconomic status, there was little difference in race-specific rates of homicide involving children 5 to 14 years of age.[33]

Since low-income populations have higher rates of homicide, socioeconomic status is probably an important confounding factor in our comparison of the rates of homicide for racial and ethnic groups. Although the median income and the overall distribution of household incomes in Seattle and Vancouver are similar, the distribution of household incomes by racial and ethnic group may not be the same in Vancouver as in Seattle. For example, blacks in Vancouver had a slightly higher mean income in 1981 than the rest of Vancouver's population (Statistics Canada, 1981 Census Custom Tabulation: unpublished data). In contrast, blacks in Seattle have a substantially lower median income than the rest of Seattle's population.[34] Thus, much of the excess risk of homicide among blacks in Seattle, as compared with blacks in Vancouver, may be explained by their lower socioeconomic status. If, on the other hand, more whites in Vancouver have low incomes than whites in Seattle, the higher risk of homicide expected in this

low-income subset may push the rate of homicide among whites in Vancouver higher than that for whites in Seattle. Unfortunately, neither hypothesis can be tested in a quantitative fashion, since detailed information about household incomes according to race is not available for Vancouver.

Three limitations of our study warrant comment. First, our measures of the prevalence of firearm ownership may not precisely reflect the availability of guns in the two communities. Although the two measures we used were derived independently and are consistent with the expected effects of gun control, their validity as indicators of community rates of gun ownership has not been conclusively established. Cook's gun prevalence index has been shown to correlate with data derived from national surveys, but it has not been tested for accuracy in cities outside the United States. Comparisons of concealed-weapons permits in Seattle with restricted-weapons permits in Vancouver are probably of limited validity, since these counts do not include handguns obtained illegally. In fact, the comparison of permit data of this sort probably substantially underestimates the differences between the communities in the rate of handgun ownership, since only a fraction of the handguns in Seattle are purchased for use as concealed weapons, whereas all legal handgun purchases in Vancouver require a restricted-weapons permit. Still, these indirect estimates of gun ownership are consistent with one another, and both agree with prior reports that estimate the rate of handgun ownership in Canada to be about one fourth that in the United States.[35]

Second, although similar in many ways, Seattle and Vancouver may well differ in other aspects that could affect their rates of homicide. For example, differences in the degree of illegal drug-related activity, differences in the rate of illicit gun sales, or other, less readily apparent differences may confound the relation between firearm regulations and the rate of homicide. Although such differences may exist, striking socioeconomic similarities between the cities and the fact that they had similar rates of burglary, robbery, and both simple and aggravated assault during comparable reporting periods make such confounding less likely. Unfortunately, changes in the rules for reporting assault cases in Seattle, mandated by the State of Washington in 1984, precluded a valid comparison of the rates of simple and aggravated assault over the entire seven-year period.

Third, conclusions based on a comparison of two cities in the Pacific Northwest may not be generalizable to other urban areas in North America. Given the complex interaction of individual behavior, environment, and community factors in the pathogenesis of violent death, we cannot predict the precise impact that Canadian-style gun control might have in the United States. Even if such a major change in public policy were to take place, the current high rates of handgun ownership might blunt any effects of tougher handgun regulations for years to come.

Our analysis of the rates of homicide in these two largely similar cities suggests that the modest restriction of citizens' access to firearms (especially handguns) is associated with lower rates of homicide. This association does not appear to be explained by differences between the communities in aggressiveness, criminal behavior, or response to crime. Although our findings

should be corroborated in other settings, our results suggest that a more restrictive approach to handgun control may decrease national homicide rates.

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EXHIBIT 16

The Relationship Between Gun Ownership and Firearm Homicide Rates in the United States, 1981–2010

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Objectives. We examined the relationship between levels of household firearm ownership, as measured directly and by a proxy—the percentage of suicides committed with a firearm—and age-adjusted firearm homicide rates at the state level.

Methods. We conducted a negative binomial regression analysis of panel data from the Centers for Disease Control and Prevention's Web-Based Injury Statistics Query and Reporting Systems database on gun ownership and firearm homicide rates across all 50 states during 1981 to 2010. We determined fixed effects for year, accounted for clustering within states with generalized estimating equations, and controlled for potential state-level confounders.

Results. Gun ownership was a significant predictor of firearm homicide rates (incidence rate ratio = 1.009; 95% confidence interval = 1.004, 1.014). This model indicated that for each percentage point increase in gun ownership, the firearm homicide rate increased by 0.9%.

Conclusions. We observed a robust correlation between higher levels of gun ownership and higher firearm homicide rates. Although we could not determine causation, we found that states with higher rates of gun ownership had disproportionately large numbers of deaths from firearm-related homicides. (*Am J Public Health.* 2013;103:2098–2105. doi:10.2105/AJPH.2013.301409)

The December 14, 2012, tragic shooting of 20 children and 7 adults in Newtown, Connecticut, brought the issue of controlling firearm-related mortality to the forefront.[1–5] The National Rifle Association responded by calling for armed guards and teachers in all schools.[6] Hundreds of teachers have flocked to gun-training classes, motivated by the contention that increasing the presence of guns can reduce firearm-related deaths.[7] Firearms are responsible for more than 31 000 deaths and an estimated 74 000 nonfatal injuries among US residents each year,[8] most of which are violence related. Understanding the relationship between the prevalence of gun ownership (and therefore the availability of guns) and firearm-related mortality is critical to guiding decisions regarding recently proposed measures to address firearm violence.

Several lines of research have explored the relationship between firearm prevalence and homicide rates.[9] Studies have shown that individual gun ownership is related to an increased risk of being a homicide victim.[10–12] These studies are limited because they only examine the individual risks or benefits of gun ownership. They cannot be used to assess whether the prevalence of gun ownership in the population affects overall homicide rates.[9] Ecological studies have correlated higher levels of gun ownership rates in the United States with higher national rates of homicide than are experienced in other countries.[13–19] Although these studies suggest a relationship between gun ownership and homicide, they are severely limited because of inadequate adjustment for confounding factors.[9]

Examination of variation in homicide rates between cities, regions, or states within the United States in relation to differences in gun ownership provides a stronger line of research. A few studies have used a time-series design to investigate the relationship between firearm ownership and homicide over a period of years, either analyzing changes over time within cities or states[20–23] or examining changes over time across states.[24–29] Several studies used cross-sectional analyses to detect a positive relationship between the prevalence of gun ownership at the neighborhood,[30] county,[31,32] regional,[31,33–36] or state level[32,34–45] and homicide rates, with control for differences in factors associated with homicide (e.g., urbanization, race/ethnicity, unemployment, poverty, crime, and alcohol use). Most data used in these studies represented only a cross-section in time; only 4 contained panel data over multiple years. Sorenson and Berk used data from 1972 to 1993,[23] Bordura examined data for 1973 to 1981,[31] Miller et al. published 3 analyses of panel data from 1988 to 1997,[34–36] and Cook and Ludwig used panel data for 1980 to 1999.[32] None of the existing panel studies examined data more recent than 1999.[32]

Studies analyzing data over long periods are valuable because they assess the effects of variation in gun availability not only between states but within states over time. Although we are aware of no multiyear studies of interstate variation in gun ownership and homicide rates since 1999, national data from the General Social Survey show that the prevalence of household gun ownership has decreased by approximately 12% since then.[46] This presents an opportunity not only to bring the existing literature up to date, but also to investigate temporal changes in gun ownership to explore its potential relationship with changes in homicide rates, within and between states. Annual, state-specific homicide data are readily available from as early as 1981 and as recently as 2010.[8] During this period, the prevalence of gun ownership decreased by about 36%.[46] Thus, it is feasible and useful to study the relationship between gun availability and homicide across states over the entire period 1981 to 2010.

We expanded on previous work by incorporating the most recent data, analyzing data over 3 decades, and controlling for an extensive panel of annual, state-specific factors that might confound the association between gun ownership and firearm homicide rates. We

examined the relationship between gun ownership and age-adjusted firearm homicide rates across all 50 states during the 30-year period 1981 through 2010, with adjustment for age, gender, race/ethnicity, urbanization, poverty, unemployment, income, education, income inequality, divorce rate, alcohol use, violent crime rate, nonviolent crime rate, hate crime rate, number of hunting licenses, age-adjusted nonfirearm homicide rate, incarceration rate, and suicide rate. To the best of our knowledge, this was the most comprehensive study to date, both in number of years in the analysis and breadth of control variables.

METHODS

We assembled a panel of annual data for 1981 to 2010 for each of the 50 states. We modeled the adjusted firearm homicide rate in a given year for a given state as a function of the gun ownership level in that state during that year, with adjustment for factors that could confound the association. We used a negative binomial regression model, entering fixed effects for each year. We accounted for clustering of observations among states with a generalized estimating equation (GEE) approach.

Variables and Data Sources

The outcome variable was the age-adjusted firearm homicide rate, obtained from the Centers for Disease Control and Prevention's Web-Based Injury Statistics Query and Reporting Systems database.[8] Although death classification changed from the 9th to the 10th revision of the *International Classification of Diseases*[47,48] during the study period, a comparability analysis showed no significant differences in the classification for either suicide or homicide.[49]

The main predictor variable was the prevalence of household firearm ownership. Because no annual survey assessed the level of household firearm ownership in all 50 states during the entire study period, we used a well-established proxy: the percentage of suicides committed with a firearm (firearm suicides divided by all suicides, or FS/S). This measure has been extensively validated in the literature[13,14,32,37,44,50–54] and has been determined to be the best proxy available of many that have been tested.[50] The ratio of firearm suicides to all suicides has been shown to correlate highly with survey measures of household firearm ownership,[13,14,32,36,50–54] including state-specific measures of firearm ownership,[36,50] and has been used extensively as a proxy for state-specific gun availability in previous studies.[32,34–37,39,43,44,54–56]

In 2001, 2002, and 2004, the Behavioral Risk Factor Surveillance System surveys measured the prevalence of household gun ownership in all 50 states. We found the correlation between our proxy measure, FS/S, and the surveillance system estimates for the 50 states for 2001, 2002, and 2004 to be 0.80.

We controlled for the following factors, which have been identified in previous literature[29,32,34–37,41–45,54,56,57] as being related to homicide rates: proportion of young adults (aged 15–29 years),[8] proportion of young males (aged 15–29 years),[8] proportion of Blacks,[8] proportion of Hispanics,[58] level of urbanization,[59] educational attainment,[60] poverty status,[61] unemployment,[62] median household income,[63] income inequality (the Gini ratio),[64] per capita alcohol consumption,[65] nonhomicide violent crime rate (aggravated assault, robbery, and forcible rape),[66] nonviolent (property) crime rate (burglary, larceny–theft, and motor vehicle theft),[66] hate crime rate,[67] prevalence of hunting licenses,[68] and divorce rate.[69] To account for regional differences, we controlled for US Census region.[70] In addition, to capture unspecified factors that may be associated with firearm homicide rates, we controlled for the annual, age-adjusted rate of nonfirearm homicides in each state.[8] We also controlled for state-specific incarceration rates[71] and suicide rates.[8] The definitions and sources of these data are provided in Table 1.

Where values of a variable in some years were missing or unavailable, we interpolated data from surrounding years or extrapolated from the 2 closest years. All interpolations and extrapolations were linear. We did not, however, impute values for the outcome variable. State-level mortality data obtained through the Web-Based Injury Statistics Query and Reporting Systems for 2008 to 2010 are subject to a stringent censoring threshold not applied for earlier years in the study period, and results are not reported if fewer than 10 homicide deaths occurred. This resulted in a total of 13 missing data points for the outcome variable during the final 3 years of the study period. We excluded these data points; therefore, our data set had a total of 1487 observations.

Model and Statistical Analysis

Because the outcome variable—the age-adjusted firearm homicide rate—was skewed rather than normally distributed, and because overdispersion was present in the data (the variance greater than the mean), we modeled this outcome with a negative binomial model, following the approach taken in previous studies.[34–36,41,55,57,72,73] Estimation of the overdispersion parameter confirmed our choice of a negative binomial model over a Poisson model,[74] following Miller et al.[34]

Clustering in our data could have arisen in 2 ways: by year (30 levels) and by state (50 levels). We entered year as a fixed effect in the regression model. This allowed us to control for any national, secular changes that could affect firearm homicide rates. To account for clustering of observations among states, we used a GEE approach.[75] This procedure accounts for correlation of data within state clusters, avoiding a type 1 error that would be introduced if this correlation were ignored.[76] We used an exchangeable (compound symmetry) working correlation matrix to model the correlation among observations within states. We used robust variance estimators (the Huber–White sandwich estimator of variance) to produce consistent point estimates[75,77] and SEs[75,77,78] even if the working correlation matrix was misspecified. Our approach followed that of Miller et al., who used a GEE approach to account for clustering by region in their study of the impact of gun ownership on suicide rates.[55]

Because our primary aim was to examine the relationship between gun prevalence and homicide rates, with adjustment for all identified potential confounding variables, we first ran a full model that incorporated all variables, regardless of their contribution to the model. To develop a final, more parsimonious model, we first entered all variables found to be significant in bivariate analyses (we used a Wald test at a significance level of .10) into 1 model. We then deleted variables found not to be significant in the presence of the other variables, assessing the significance of each

TABLE 1—Variables and Data Sources in Study of Gun Ownership and Firearm Homicide Rates: United States, 1981–2010

Variable	Definition	Source	Notes
Firearm homicides	Rate/100 000 population, adjusted to 2000 age distribution	WISQARS[8]	Missing data for NH 2008–2010; ND 2008–2010; VT 2008–2010; WY 2008, 2010; HI 2010; SD 2010
Prevalence of gun ownership	Proportion of suicides committed with a firearm	WISQARS[8]	Complete panel series[a]
Age	Percentage of population aged 15–29 y	WISQARS[8]	Complete panel series[a]
Gender	Percentage of population aged 15–29 y who are male	WISQARS[8]	Complete panel series[a]
Race/ethnicity			
Black	Percentage of Blacks in population	WISQARS[8]	Complete panel series[a]
Hispanic	Percentage of Hispanics in population	US Census Bureau[58]	Complete panel series[a]
Poverty	Percentage of population living in poverty	US Census Bureau[61]	Complete panel series[a]
Unemployment	Percentage unemployed among civilian labor force, aged ≥ 16 y	US Bureau of Labor Statistics[62]	Complete panel series[a]
Household income	Median household income (in 2010 dollars)	US Bureau of the Census[63]	Data extrapolated for 1981–1983
Educational attainment	Percentage of adults aged ≥ 25 y with college degree (≥ bachelor's)	US Census Bureau[60]	Data interpolated for 1981–1988 and 1992
Income inequality	Gini coefficient	US Census Bureau[64]	Data interpolated for 1981–1988, 1990–1998, 2000–2005; variable rescaled in final model to ease interpretation of parameter estimate
Urbanization	Percentage of population living in urbanized area or urban cluster	US Census Bureau[59]	Data interpolated for 1991–1999 and 2001–2009; data extrapolated for 1981–1989 because 1980 Census definition of urban was different
Alcohol	Per capita alcohol consumption among persons aged ≥ 14 y	National Institute of Alcoholism and Alcohol Abuse[65]	Complete panel series[a]
Violent crime	Rates of aggravated assault, robbery, and forcible rape/100 000 population	Federal Bureau of Investigation[66]	Complete panel series[a]; variable rescaled in final model to ease interpretation of parameter estimate
Nonviolent crime	Rate of property crime (burglary, larceny-theft, and motor vehicle theft)/100 000 population	Federal Bureau of Investigation[66]	Complete panel series[a]; variable rescaled in final model to ease interpretation of parameter estimate
Hate crime	Rate of hate crimes against persons/1 000 000 population	Federal Bureau of Investigation[67]	Data available for 1995–2010; data from 1995 used for 1981–1994
Divorce	Rate/1000 population	National Center for Health Statistics[69]; US Census Bureau[59]	Data interpolated for 1986 in all states, interpolated for many years for CA, GA, HI, IN, LA, and MN
Hunting licenses	Proportion of population aged ≥ 15 y licensed	US Fish and Wildlife Service[68]	Complete panel series[a]
Region	Census region	US Census Bureau[70]	Complete panel series[a]
Nonfirearm homicides	Rate/100 000 population, adjusted to 2000 age distribution	WISQARS[8]	Missing data for NH 2008–2010; ND 2008–2010; VT 2008–2010; WY 2008, 2010; HI 2010; SD 2010
Incarceration	Prisoners with sentence of > 1 y/100 000 population	Bureau of Justice Statistics[71]	Data interpolated for 1981, 1982, and 1992
Suicide	No./100 000 population	WISQARS[8]	Complete panel series[a]

Note. WISQARS = Web-Based Injury Statistics Query and Reporting Systems.
[a]All 50 states, 1981–2010.

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variable with a Wald test at a significance level of .05. Finally, we added each of the excluded variables into the model, 1 at a time, to assess whether it became significant when included in a model with the other variables. We included fixed effects for year and clustering by state in all models.

As a check on the robustness of the results, we also ran a negative binomial model with fixed effects for both year and state. Because of the large number of variables in this model, we reported only the statistically significant predictors in this version of the final model. We conducted all analyses with the XTNBREG and NBREG procedures in Stata version 12 (StataCorp LP, College Station, TX).

RESULTS

Over the 30-year study period, the mean estimated percentage of gun ownership (measured by the FS/S proxy) ranged from a low of 25.8% in Hawaii to a high of 76.8% in Mississippi, with an average over all states of 57.7% (Appendix A, available as a supplement to the online version of this article at http://www.ajph.org). Among the 50 states, the average percentage of gun ownership (measured by the FS/S proxy) decreased from 60.6% in 1981 to 51.7% in 2010. By decade, this percentage declined from 60.6% in 1981 to 1990 to 59.6% in 1991 to 2000 to 52.8% in 2001 to 2010.

Over the study period, the mean age-adjusted firearm homicide rate ranged from a low of 0.9 per 100 000 population in New Hampshire to a high of 10.8 per 100 000 in Louisiana, with an average over all states of 4.0 per 100 000 (Appendix A). Among the 50 states, the average firearm homicide rate decreased from 5.2 per 100 000 in 1981 to 3.5 per 100 000 in 2010. By decade, this rate was 4.2 per 100 000 in 1981 to 1990, 4.3 per 100 000 in 1991 to 2000, and 3.4 per 100 000 in 2001 to 2010.

In a bivariate analysis (a GEE negative binomial model with year fixed effects and accounting for clustering by state, but without any other predictor variables besides gun ownership), the gun ownership proxy was a significant predictor of firearm homicide rates (incidence rate ratio [IRR] = 1.011; 95% confidence interval [CI] = 1.005, 1.018).

The final GEE negative binomial model revealed 6 significant predictors of firearm homicide rates: gun ownership proxy (IRR = 1.009; 95% CI = 1.004, 1.014), percentage Black, income inequality, violent crime rate, nonviolent crime rate, and incarceration rate (Table 2). This model indicates that for each 1 percentage point increase in the gun ownership proxy, the firearm homicide rate increased by 0.9%.

In the final model, rerun with standardized predictor variables to ease interpretation of results, the IRR for the gun ownership proxy was 1.129 (95% CI = 1.061, 1.201), indicating that for each 1-SD increase in the gun ownership proxy, the firearm homicide rate increased by 12.9% (Table 3).

After we controlled for all the measured potential confounding variables, rather than just those found significant in the final model, the gun ownership proxy was still a significant predictor of firearm homicide rates (IRR = 1.008; 95% CI = 1.004, 1.012; Table 4). This result did not change after we excluded the 6 states with missing data for homicide rates in 1 or more years. When we restricted the analysis to 2001, 2002, and 2004 (years for which the Behavioral Risk Factor Surveillance System directly measured household gun ownership in all 50 states), the magnitude of the IRR estimated with the proxy measure (FS/S) was similar to that estimated with the survey measure of state-specific household gun ownership, but it was not statistically significant. The IRR associated with gun ownership also remained the same when we executed the full model with PROC GENMOD in SAS version 9.1 (SAS Institute, Cary, NC) rather than the XTNBREG procedure in Stata. We also found little change in the results when we omitted all variables with 1 or more interpolated or extrapolated values from the analysis.

When we lagged the gun ownership proxy by 1 year, it remained a significant predictor of firearm homicide rates (IRR = 1.009; 95% CI = 1.005, 1.013; Table 4). When we lagged the gun ownership proxy by 2 years, its effect was attenuated, although still positive and significant (IRR = 1.005; 95% CI = 1.001, 1.009).

We found little change in the magnitude or significance of the parameter estimate for the gun ownership proxy variable when we introduced linear and quadratic time variables into the analysis to model temporal changes in homicide rates or when the data were weighted by the square root of state population (Table 4). Use of a Poisson rather than a negative binomial model did not alter the results.

In a negative binomial model with both year and state fixed effects, the gun ownership proxy

TABLE 2—Results of Final Model for Significant Predictors of Age-Adjusted Firearm Homicide Rate: United States, 1981–2010

Variable	IRR (95% CI)	*P*	Interpretation
Gun ownership	1.009 (1.004, 1.014)	.001	For each 1 percentage point increase in proportion of household gun ownership, firearm homicide rate increased by 0.9%
Percentage Black	1.052 (1.037, 1.068)	.001	For each 1 percentage point increase in proportion of Black population, firearm homicide rate increased by 5.2%
Gini coefficient	1.046 (1.003, 1.092)	.037	For each 0.01 increase in Gini coefficient, firearm homicide rate increased by 4.6%
Violent crime rate	1.048 (1.010, 1.087)	.013	For each increase of 1/1000 in violent crime rate, firearm homicide rate increased by 4.8%
Nonviolent crime rate	1.008 (1.003, 1.013)	.002	For each increase of 1/1000 in nonviolent crime rate, firearm homicide rate increased by 0.8%
Incarceration rate	0.995 (0.991, 0.999)	.027	For each increase of 1/10 000 in incarceration rate, firearm homicide rate decreased by 0.5%

Note. CI = confidence interval; IRR = incidence rate ratio. Final model incorporated only variables whose parameter estimates were significant at the $P < .05$ level. Model included fixed effects for year and adjustment for clustering within states.

TABLE 3—Results of Final Model for Significant Predictors of Age-Adjusted Firearm Homicide Rate, Using Standardized Predictor Variables: United States, 1981–2010

Variable	IRR (95% CI)	*P*	Interpretation
Gun ownership	1.129 (1.061, 1.201)	.001	For each 1-SD increase in proportion of household gun ownership, firearm homicide rate increased by 12.9%
Percentage Black	1.828 (1.536, 2.176)	.001	For each 1-SD increase in proportion of black population, firearm homicide rate increased by 82.8%
Gini coefficient	1.129 (1.007, 1.266)	.037	For each 1-SD increase in Gini coefficient, firearm homicide rate increased by 12.9%
Violent crime rate	1.154 (1.031, 1.291)	.013	For each 1-SD increase in violent crime rate, firearm homicide rate increased by 15.4%
Nonviolent crime rate	1.100 (1.036, 1.168)	.002	For each 1-SD increase in nonviolent crime rate, firearm homicide rate increased by 10.0%
Incarceration rate	0.928 (0.868, 0.992)	.027	For each 1-SD increase in incarceration rate, firearm homicide rate decreased by 7.8%.

Note. CI = confidence interval; IRR = incidence rate ratio. Final model incorporated only variables whose parameter estimates were significant at the $P < .05$ level. Model included fixed effects for year and adjustment for clustering within states.

remained a significant predictor of firearm homicide rates (IRR = 1.010; 95% CI = 1.001, 1.019). Percentage Black and violent crime rate were also significant predictors of firearm homicide in this model (data not shown).

To investigate whether our proxy measure of gun ownership also predicted non–firearm-related homicides, we repeated the analyses with the age-adjusted nonfirearm homicide rate as the outcome variable. The gun ownership proxy was not a significant predictor of nonfirearm homicide rates in either the full (IRR = 1.001; 95% CI = 0.998, 1.005; $P = .52$) or final (IRR = 0.999; 95% CI = 0.996, 1.003; $P = .78$) models (data not shown).

To address the potential problem of serial autocorrelation, we ran a set of 30 year-specific negative binomial regressions. Because of the small number of data points, we ran parsimonious models with only a few predictors. Starting with our final model, we included only covariates that were significant predictors of homicide rates in at least 2 of the year-specific regressions (percentage Black, income inequality, violent crime rate, and gun ownership proxy). The gun ownership proxy was statistically significant in 26 of the 30 year-specific models, with an IRR in these 30 regressions ranging from 1.009 to 1.022.

DISCUSSION

To the best of our knowledge, ours is the most up-to-date and comprehensive analysis of the relationship between firearm ownership and gun-related homicide rates among the 50 states. Our study encompassed a 30-year period, with data through 2010, and accounted for 18 possible confounders of the relationship between gun ownership and firearm homicide. We found a robust relationship between higher levels of gun ownership and higher firearm homicide rates that was not explained by any of these potential confounders and

TABLE 4—Effects of Gun Ownership Level on Age-Adjusted Firearm Homicide Rate: United States, 1981–2010

Gun Ownership Level	IRR (95% CI)	*P*
Current gun ownership		
Full model[a]	1.008 (1.004, 1.012)	.001
Excluding states with missing data[b]	1.009 (1.005, 1.014)	.001
Restricted to years 2001, 2002, and 2004[c]	1.023 (1.014, 1.032)	.001
Survey measure of gun ownership used instead of proxy measure (years 2001, 2002, and 2004 only)[d]	1.016 (0.997, 1.036)	.1
Full model executed in SAS[e]	1.009 (1.004, 1.014)	.001
Variables with interpolated or extrapolated values omitted from analysis[f]	1.009 (1.005, 1.014)	.001
Control for temporal trends in homicide rates (linear and quadratic terms for time included in model)	1.010 (1.005, 1.014)	.001
Individual data points weighted by square root of state population	1.011 (1.005, 1.017)	.001
Poisson model instead of negative binomial model	1.008 (1.004, 1.013)	.001
Gun ownership in previous years		
Lagged 1 y	1.009 (1.005, 1.013)	.001
Lagged 2 y	1.005 (1.001, 1.009)	.024

Note. CI = confidence interval; IRR = incidence rate ratio.
[a]Included fixed effects for year, adjustment for clustering within states, and controls for percentage young (aged 15–29 y), percentage young males, percentage Black, percentage Hispanic, poverty, unemployment, household income, educational attainment, income inequality, level of urbanization, alcohol consumption, violent crime rate, nonviolent crime rate, hate crime rate, divorce rate, hunting licenses, region, age-adjusted nonfirearm homicide rate, incarceration rate, and suicide rate.
[b]Excluded data from states with missing data for age-adjusted firearm homicide rate in any year: New Hampshire, North Dakota, Vermont, Wyoming, Hawaii, and South Dakota.
[c]Years for which Behavioral Risk Factor Surveillance System (BRFSS) data on household gun ownership were available.
[d]Main predictor variable was proportion of households with guns according to BRFSS in 2001, 2002, and 2004; proxy measure (firearm suicides divided by all suicides) was not used in this model.
[e]Model run with PROC GENMOD in SAS version 9.1 (SAS Institute, Cary, NC), with empirical SEs.
[f]Variables with interpolated or extrapolated values were household income, educational attainment, income inequality, level of urbanization, hate crime rate, divorce rate, and incarceration rate.

was not sensitive to model specification. Our work expanded on previous studies not only by analyzing more recent data, but also by adjusting for clustering by year and state and controlling for factors, such as the rate of nonfirearm homicides, that likely capture unspecified variables that may be associated with both gun ownership levels and firearm homicide rates.

The correlation of gun ownership with firearm homicide rates was substantial. Results from our model showed that a 1-SD difference in the gun ownership proxy measure, FS/S, was associated with a 12.9% difference in firearm homicide rates. All other factors being equal, our model would predict that if the FS/S in Mississippi were 57.7% (the average for all states) instead of 76.8% (the highest of all states), its firearm homicide rate would be 17% lower. Because of our use of a proxy measure for gun ownership, we could not conclude that the magnitude of the association between actual household gun ownership rates and homicide rates was the same. However, in a model that incorporated only survey-derived measures of household gun ownership (for 2001, 2002, and 2004), we found that each 1-SD difference in gun ownership was associated with a 24.9% difference in firearm homicide rates.

Our results were consistent with, but generally lower than, previous estimates of the effect of gun ownership on homicide rates. We were able to replicate Miller et al.'s study by restricting our analysis to 1988 to 1997 and controlling for the same variables as they did. We obtained an IRR of 1.36 (95% CI = 1.20, 1.54) for the gun ownership proxy; their result was 1.41 (95% CI = 1.27, 1.57).[34] After adjusting for clustering by state with GEEs, incorporating year fixed effects, and including additional significant predictors, we obtained an IRR of 1.17 (95% CI = 1.11, 1.24).

Limitations

We used a proxy measure of firearm ownership that did not perfectly correlate with survey-derived measures and was therefore not ideal. We have 2 reasons for believing that the observed relationship between gun ownership and homicide rates was not an artifact of the use of this proxy measure. First, when we restricted the analysis to 2001, 2002, and 2004 and relied on a survey measure of gun ownership, the parameter estimate for gun ownership was similar to (but higher than) that obtained with the proxy measure. Second, the observed relationship between the proxy measure of gun ownership and homicide rates was specific to firearm homicides. We detected no significant relationship between gun ownership and nonfirearm homicide rates.

We conducted an ecological study with large aggregates (states) representing the units of analysis. This introduced the possibility that an unknown confounder could explain the observed relationship. For this to occur, a putative confounder would have to be strongly correlated with both gun ownership and firearm homicide rates, but not highly correlated with any of the other variables we measured. Because of the number of predictor variables we incorporated in our analysis, this seems unlikely. The likelihood was lessened further by our failure to find a significant relationship between gun ownership and nonfirearm homicide rates. Nevertheless, the possibility remains that an omitted variable confounded the observed relationship.

A reverse causal association was also possible. For example, increases in firearm homicide rates could have led to efforts by state residents to acquire guns, thus increasing gun ownership levels.[9,25,29,32,34–36,41,79,80] We addressed this question with a lagged variable and found that gun ownership, lagged by either 1 or 2 years, was still a significant predictor of firearm homicide rates. This is consistent with, but does not prove, the hypothesis that changes in gun ownership rates affect subsequent firearm homicide rates. It is not possible in a panel study such as ours to determine causality. Furthermore, although this was a panel study, the variation occurred mainly in the cross section, because the differences in firearm homicide across states were greater than the changes over time.

Conclusions

Our study substantially advances previous work by analyzing recent data, examining the longest and most comprehensive panel of state-specific data to date, and accounting for year and state clustering and for a wide range of potential confounders. We found a robust relationship between gun ownership and firearm homicide rates, a finding that held whether firearm ownership was assessed through a proxy or a survey measure, whether state clustering was accounted for by GEEs or by fixed effects, and whether or not gun ownership was lagged, by up to 2 years. The observed relationship was specific to firearm-related homicide. Although we could not determine causation, we found that states with higher levels of gun ownership had disproportionately large numbers of deaths from firearm-related homicides. ■

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Contributors

M. Siegel obtained and analyzed the data. All authors conceptualized and designed the study, interpreted the results, wrote the article, and critically reviewed and commented on the article.

Human Participant Protection

Institutional review board approval was not needed for this study because secondary data sources were used.

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EXHIBIT 17

The Association between the Purchase of a Handgun and Homicide or Suicide

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ABSTRACT

Objectives. The purpose of this study was to determine whether purchase of a handgun from a licensed dealer is associated with the risk of homicide or suicide and whether any association varies in relation to time since purchase.

Methods. A case–control study was done among the members of a large health maintenance organization. Case subjects were the 353 suicide victims and 117 homicide victims among the members from 1980 through 1992. Five control subjects were matched to each case subject on age, sex, and zip code of residence. Handgun purchase information was obtained from the Department of Licensing.

Results. The adjusted relative risk for suicide was 1.9 (95% confidence interval [CI] = 1.4, 2.5) for persons with a history of family handgun purchase from a registered dealer. The adjusted relative risk for homicide, given a history of family handgun purchase, was 2.2 (95% CI = 1.3, 3.7). For both suicide and homicide, the elevated relative risks persisted for more than 5 years after the purchase.

Conclusions. Legal purchase of a handgun appears to be associated with a long-lasting increased risk of violent death. (*Am J Public Health.* 1997;87:974–978)

Introduction

In the United States in 1994 there were 31 142 suicides and 24 926 homicides with respective age-adjusted mortality rates of 12.0 and 9.6 per 100 000; firearms were used in 60% of suicides and 72% of homicides.[1] Guns are thought to be present in 49% of US households,[2] and 33% of gun owners report that protection is the primary reason for ownership.[3] Firearms can sometimes provide safety benefits to their owners.[4,5] Whether the benefits of firearm ownership outweigh the risks is debated.[6–9]

Evidence that access to firearms may increase the risk of suicide and homicide comes from five case–control studies.[10–14] These studies have several limitations. First, they used information from proxy respondents for case subjects, but often interviewed control subjects directly; this difference might have biased the results.[15] Second, interviews were used to ascertain gun ownership; bias could have resulted if there was deception by some respondents and the degree of deception differed between the case and control subjects. Third, two of the studies were confined to events in homes.[12,14] Persons without guns might choose a suicide method that necessitated leaving the home and there might be no association between gun ownership and all suicides.[16] Only 24% of murders in the study area occurred in the home,[14] so the association between gun ownership and most homicides is unknown.[17] Fourth, three of the studies were confined to adolescents.[10,11,13] Finally, the study of homicides[14] was criticized[17] because the socioeconomic status of many victims was low. It is conceivable that firearms might be a risk factor for homicide among the poor but not among others.

To address these issues, we studied the predominantly middle-class members of a health maintenance organization. Our main question was whether purchase of a handgun from a licensed dealer was associated with an increased or decreased risk of suicide or homicide. In addition, we asked whether risk or benefit varied in relation to the time since purchase, number of handguns purchased, or caliber of weapon purchased.

Methods

Group Health Cooperative of Puget Sound, a health maintenance organization in Washington State, grew from 320 000 members in 1980 to 450 000 members in 1992. Compared with the 1984 adult population of the United States, a random sample of 1133 adult Group Health members in 1984 were more often female (55% vs 52%), more likely to have completed high school (91% vs 70%),

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less often African American (3% vs 11%), and less likely to have a family income below $15 000 (20% vs 33%).[18–21]

A case subject was a Group Health member who died of suicide or homicide during the period January 1, 1980, through December 31, 1992. Computerized Washington State death certificates were compared with computerized Group Health membership records to identify case subjects. For each case subject, five control subjects were sought from the membership file. Control subjects were randomly selected from among persons who were Group Health members on the day the case subject died and who matched that person on sex, age (within 6 years), and zip code of residence. If five control subjects could not be found within the case subject's zip code, we selected additional control subjects from adjoining zip codes. The case subject's date of death became the reference date for his or her matched control subjects. For each case and control subject, we identified family members (spouse or children) who were enrolled under the same Group Health policy.

When a handgun (but not a long gun) is purchased from a licensed dealer in Washington State, information about the sale must be reported to the Department of Licensing. This information was computerized for purchases from 1940 through June 1993. This file was linked to the subjects and family members to identify the handgun purchase history of each study subject and his or her family prior to death or reference date. We defined three categories of handgun purchase: (1) family purchase (purchase by the subject or any family member), (2) personal purchase (purchase by the study subject), and (3) family member purchase (purchase by any family member, but not the study subject).

The most recent address prior to death or reference date for each subject was obtained from Group Health files. Computerized geocoding methods (Harte-Hanks Data Technologies, Billerica, Mass) were used to map this address to a census block group. The socioeconomic status of persons in each census block group was measured by means of 1990 census variables: median family income in 1989, median value of owner-occupied homes, and average years of education for persons over 24 years of age.[22]

Person-years of Group Health membership were calculated by age and sex. Age-adjusted rates were directly standardized to the 1940 United States population.[23] Odds ratios from conditional logistic regression, which accounted for the matched design, were used to approximate relative risks.[24] Potential confounding variables examined were the number of family members and the measures of census block group affluence and education. The chi-square approximation of the likelihood ratio statistic was used for tests of heterogeneity, trend, and interaction.

TABLE 1—Incidence of Suicide and Homicide among Members of Group Health Cooperative, Washington State, 1980 through 1992

	Suicides/100 000 Member-Years (95% CI)	Homicides/100 000 Member-Years (95% CI)
All members	8.3 (7.5, 9.2)	2.7 (2.2, 3.2)
Age, y		
0–12	0.1 (0.0, 0.7)	1.2 (0.6, 2.3)
13–19	8.8 (6.3, 11.2)	3.9 (2.3, 6.1)
20–49	9.3 (8.0, 10.7)	2.8 (2.1, 3.6)
50+	12.4 (10.4, 14.7)	2.9 (2.0, 4.1)
Sex		
Men	13.4 (11.9, 15.1)	2.9 (2.2, 3.7)
Women	3.8 (3.0, 4.6)	2.4 (1.9, 3.2)
Deaths involving firearms		
Men	8.6 (7.4, 9.9)	1.6 (1.2, 2.3)
Women	1.2 (0.9, 1.8)	1.4 (1.0, 2.0)
All	4.7 (4.1, 5.4)	1.5 (1.2, 1.9)

Note. CI = confidence interval.

Results

Incidence Rates

From 1980 through 1992, there were 4 407 197 person-years of Group Health membership, with 366 suicides and 117 deaths by homicide (Table 1). Age-adjusted Group Health mortality per 100 000 persons per year was 7.8 for suicide and 2.7 for homicide. The incidence of suicide was 3.6 times higher for males, while homicide rates showed little difference by gender. Among suicides, 52.7% used a gun, and 56.4% of homicides involved a firearm.

Comparison of Case and Control Subjects

Five matched control subjects were identified for 96.3% of all case subjects. No control subjects were found for 13 suicides, but at least one was found for each homicide victim. Among control subjects, 97.8% had an age at reference date that differed from their respective case subject's age at death by less than 2 years, and 99.1% resided in the same zip code as their matching case subject. Case subjects were more likely than control subjects to have no family members (33.7% vs 25.4% for suicides and 31.9% vs 26.1% for homicide victims).

Not all addresses could be geocoded; census block group data could be linked to 83.4% of all matched case subjects and 83.4% of all control subjects. Suicides showed little difference from control subjects for the census variables; P values for trend tests were all greater than .8. Homicide victims were more likely than control subjects in the same zip code area to reside in poor neighborhoods, as judged by median family income (test for trend, $P = .01$), but showed little difference from control subjects in median value of neighborhood homes (test for trend, $P = .8$) or in the educational attainment of neighborhood adults (test for trend, $P = .6$).

Suicide and Handgun Purchase

Persons who committed suicide were more likely than control subjects to have a history of family handgun purchase (24.6% vs 15.1%). The relative risk for suicide, given a family handgun purchase, was 1.9 (95% confidence interval [CI] = 1.4, 2.5) (Table 2). The relative risks for suicide given a personal or family member handgun purchase were also elevated, although the elevated risk for family member purchase was not statistically significant. These estimates are adjusted for the matching variables; further adjustment for family size or the socioeconomic status variables resulted in no important change. The relative risk for suicide in[illegible] was [illegible] (95% CI = 2.2, 4.4) [illegible]mbers [illegible] with [illegible]mily handgun

TABLE 2—Handgun Purchase History and Relative Risk Estimates for Matched Suicides and Control Subjects

Handgun Purchase History	Suicides (n = 353) No.	(%)	Control Subjects (n = 1756) No.	(%)	Adjusted Relative Risk[a]	95% Confidence Interval	P[b]
Category of purchase							. . .
Family	87	(24.6)	265	(15.1)	1.9	1.4, 2.5	
Personal	62	(17.6)	177	(10.1)	2.0	1.4, 2.8	
Family member	25	(7.1)	88	(5.0)	1.5	0.9, 2.5	
Time since family purchase, y							.03[c]
<1	11	(3.1)	12	(0.7)	5.7	2.4, 13.5	
1–4	11	(3.1)	37	(2.1)	1.7	0.8, 3.4	
≥5	65	(18.4)	216	(12.3)	1.7	1.3, 2.3	
No. family purchases							.06
1	45	(12.7)	162	(9.2)	1.6	1.1, 2.2	
2	14	(4.0)	44	(2.5)	1.8	1.0, 3.4	
≥3	28	(7.9)	59	(3.4)	2.7	1.7, 4.4	
Maximum caliber of family purchase[d]							.3
.22–.30	30	(8.5)	107	(6.1)	1.6	1.0, 2.4	
.32–.45	56	(15.9)	153	(8.7)	2.1	1.5, 2.9	

[a]Adjusted for age, sex, zip code area, and reference date.
[b]Statistical significance of any trend across the presented categories.
[c]Test for heterogeneity of exposure categories.
[d]Data missing for 1 case and 5 control subjects.

TABLE 3—Handgun Purchase History and Relative Risk Estimates for Matched Homicide Victims and Control Subjects

Handgun Purchase History	Homicide Victims (n = 117) No.	(%)	Control Subjects (n = 582) No.	(%)	Adjusted Relative Risk[a]	95% Confidence Interval	P[b]
Category of purchase							. . .
Family	25	(21.4)	69	(11.9)	2.2	1.3, 3.7	
Personal	11	(9.4)	29	(5.0)	2.2	1.0, 4.7	
Family member	14	(12.0)	40	(6.9)	2.1	1.0, 4.2	
Time since family purchase, y							.3
<5	3	(2.6)	17	(2.9)	1.0	0.3, 3.6	
5–9	5	(4.3)	11	(1.9)	2.9	0.9, 8.9	
≥10	17	(14.5)	41	(7.0)	2.5	1.3, 4.7	
No. family purchases							.004
1	7	(6.0)	37	(6.4)	1.1	0.5, 2.5	
2	7	(6.0)	20	(3.4)	2.1	0.8, 5.2	
≥3	11	(9.4)	12	(2.1)	6.2	2.4, 15.6	
Maximum caliber of family purchase[c]							.2
.22–.30	5	(4.3)	23	(4.0)	1.3	0.5, 3.4	
.32–.45	20	(17.1)	44	(7.6)	2.7	1.5, 5.0	

[a]Adjusted for age, sex, zip code area, and reference date.
[b]Statistical significance of any trend across the presented categories.
[c]Data missing for 2 control subjects.

purchase compared with others, while the relative risk for suicide not involving a gun was 0.8 (95% CI = 0.4, 1.3).

The median interval between the first handgun purchase by the victim or any family member and any suicide with a gun was 10.7 years (range, 11 days to 52.5 years). The relative risk for suicide given a family handgun purchase was greatest within the first year after purchase but remained elevated even after 5 years (Table 2).

The association between handgun purchase and suicide tended to become stronger as the number of handguns purchased increased (test for trend across categories, $P = .06$) (Table 2). When persons were classified by the largest caliber of any family handgun purchase, the relative risk of suicide showed little variation by caliber.

The association between family handgun purchase and suicide was estimated in several subgroups. No statistically significant differences in the relative risk estimates were found for categories of sex, age, or neighborhood median family income (data not shown).

Homicide and Handgun Purchase

Homicide victims were more likely than control subjects to have a history of family handgun purchase (21.4% vs 11.9%). The relative risk of death by homicide for those with a family handgun purchase was 2.2 (95% CI = 1.3, to 3.7) (Table 3). The relative risks for death by homicide given a personal or family member purchase were also elevated, although these estimates were of borderline statistical significance. These estimates are adjusted for the matching variables; further adjustment for family size or the census variables resulted in no important change. The relative risk for death by homicide involving a gun was 2.2 (95% CI = 1.1, 4.4) for persons with a family handgun purchase compared with others, while the corresponding relative risk for homicide not involving a gun was 2.0 (95% CI = 0.9, 4.7).

The median interval between first family handgun purchase and any homicide death with a gun was 11.3 years (range, 5.1 to 21.9 years). The relative risk of death by homicide associated with family handgun purchase bore no statistically significant relationship to time since purchase (Table 3).

There was a stronger association between handgun purchase and death by homicide as the number of handguns purchased increased (test for trend across categories, $P = .004$) (Table 3). When persons were classified by the largest caliber of any family handgun purchase, the relative risk of homicide did not show a statistically significant variation by caliber.

When subgroups were analyzed, the association between family handgun purchase and death by homicide was not statistically different by categories of sex, age, or neighborhood median family income (data not shown).

Discussion

Members of a health maintenance organization whose families had a history of registered handgun purchase had risks of death by suicide and homicide that were twice as high as the risks of members of the same age, sex, and neighborhood who had no history of handgun purchase. The increased relative risks persisted for more than 5 years after the purchase.

From 1980 through 1992, the age-adjusted suicide rate in the Group Health population was 7.8 per 100 000 persons per year; the corresponding rate was 13.2 in Washington State and 11.5 in the United States (mortality and population data from the National Center for Health Statistics). The middle-class nature of the study population is reflected in the low age-adjusted homicide rate: 2.7 per 100 000 persons per year for Group Health members during the study period, compared with 5.3 for all of Washington and 9.5 for the United States.

Inability to measure and control for other differences between case and control subjects could have biased our relative risk estimates. Three previous studies of the association between gun ownership and suicide[11–13] and the only previous study regarding death by homicide[14] adjusted their relative risk estimates for variables that we did not measure, including psychiatric history, substance abuse, criminal history, and previous household violence. In three of these studies[12–14] these adjustments increased the relative risk estimates.

Residual confounding in our study can be assessed indirectly by examining the relative risk estimates for suicide and homicide deaths without a gun; we would expect handgun purchase to have little positive association with deaths that do not involve a gun. For suicide by means other than a firearm, the relative risk was 0.8 (95% CI = 0.4, 1.3) among those with a history of handgun purchase. The finding that this estimate is close to 1.0 suggests that the underlying risk of suicide was similar between handgun purchasers and nonpurchasers apart from purchase history.

For death by homicide by means other than a gun, the relative risk was 2.0 (95% CI = 0.9, 4.7) among those with a history of family handgun purchase. Although chance could explain this finding, another explanation may be that handgun purchasers were more inclined toward violence or lived in more dangerous surroundings and these factors induced them to purchase handguns. This violent personality or environment may have increased the risk for both gun-related and other homicide death, regardless of exposure to handgun purchase. If this theory is true, then the apparent association between handgun purchase and all homicide deaths may be due to uncontrolled confounding. Another explanation might be that some handgun purchasers were encouraged by their ownership of a gun to engage in activities that increased their risk for homicide by any means.

Handgun purchase from a licensed dealer can be considered a proxy measure for handgun ownership. Some study subjects classified as exposed to handguns may have disposed of their handguns; others classified as not exposed may have possessed handguns that they purchased legally from sources other than a registered dealer, purchased out of state, or obtained illegally. If such errors in classification occurred with similar frequency among case and control subjects, the relationship between handgun ownership and risk could have been underestimated in our study.[25] It is also possible that persons inclined to commit homicide may have been more likely to procure handguns exclusively by private or illegal means; these transactions are not reported to the state. If this pattern is present, it would tend to bias our relative risk estimates for homicide toward zero.

There is evidence that handgun purchase records did not grossly underestimate exposure to handguns in our study. In 1992, of 1000 Seattle adults interviewed, 14.2% reported household ownership of a handgun.[26] This figure is similar to the prevalence of family handgun purchase history among our control subjects matched to suicide and homicide victims (15.1% and 11.9%, respectively).

Defining exposure as purchase of a handgun from a dealer offered some advantages. Because exposure was recorded before the outcome, recall bias was eliminated. We did not have to rely on proxy respondents for exposure information regarding the case subjects, and deception regarding exposure was eliminated. Those who recommend purchase of a handgun for protection are referring to legal purchase, and many of these purchases would be from dealers. If this exposure is associated with an increased risk of death, the overall risk of legal handgun purchase may outweigh any protective benefit.

Our finding of an increased relative risk for suicide among persons in families that purchased handguns agrees in general with the findings of previous case–control studies of suicide and gun ownership. Three studies were conducted among adolescents in western Pennsylvania.[10,11,13] Using inpatients as control subjects, the first study reported that the relative risk for suicide among those with firearms in the home was 2.7,[10] and the second study gave an estimate of 2.1.[11] The third study used population-based control subjects and reported an adjusted relative risk for suicide, given a handgun in the home, of 9.5 (95% CI = 1.7, 53.9).[13] A study conducted in Tennessee and Washington estimated that the relative risk for suicide in the home among handgun owners was 5.8.[12]

Our finding regarding death by homicide and purchase of a handgun was similar to that of the only previous case–control study of this association. In Tennessee, Washington, and Ohio, victims of homicide in the home were compared with population-based control subjects; the relative risk for homicide, adjusted for matching variables, was 1.9 (95% CI = 1.4, 2.7) among handgun owners.[14] The authors reported a relative risk of 2.7 among owners of any firearm compared with nonowners, after further adjustment for other variables, but a fully adjusted relative risk estimate for handguns was not given.

Some persons may purposely buy a handgun to commit suicide or homicide. There was evidence in our data that this was true for suicide; within the first year after purchase, the relative risk of suicide was more than fivefold higher among those with a family history of handgun purchase. After the first year the increased relative risk of suicide persisted at a lower level, consistent with the theory that the presence of a handgun in the home may facilitate suicide during a period of despondency. For homicide the results were different; no Group Health member was murdered with a gun within 5 years of any first handgun purchase, and the elevated risks for death by homicide associated with handgun purchase did not show any statistically significant variation by time since purchase. This suggests that in the Group Health population, deliberate

legal purchase of a handgun to commit murder within a family is a rare event.

Our findings should be of interest to persons who own a handgun or are considering the purchase of a handgun. While there are occasional situations in which handguns offer protection against violent death, our study and previous studies agree that on average, the acquisition of a handgun appears to be associated with an increased risk of violent death. □

Acknowledgment

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EXHIBIT 18

Special Article

MORTALITY AMONG RECENT PURCHASERS OF HANDGUNS

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ABSTRACT

Background There continues to be considerable controversy over whether ownership of a handgun increases or decreases the risk of violent death.

Methods We conducted a population-based cohort study to compare mortality among 238,292 persons who purchased a handgun in California in 1991 with that in the general adult population of the state. The observation period began with the date of handgun purchase (15 days after the purchase application) and ended on December 31, 1996. The standardized mortality ratio (the ratio of the number of deaths observed among handgun purchasers to the number expected on the basis of age- and sex-specific rates among adults in California) was the principal outcome measure.

Results In the first year after the purchase of a handgun, suicide was the leading cause of death among handgun purchasers, accounting for 24.5 percent of all deaths and 51.9 percent of deaths among women 21 to 44 years old. The increased risk of suicide by any method among handgun purchasers (standardized mortality ratio, 4.31) was attributable entirely to an excess risk of suicide with a firearm (standardized mortality ratio, 7.12). In the first week after the purchase of a handgun, the rate of suicide by means of firearms among purchasers (644 per 100,000 person-years) was 57 times as high as the adjusted rate in the general population. Mortality from all causes during the first year after the purchase of a handgun was greater than expected for women (standardized mortality ratio, 1.09), and the entire increase was attributable to the excess number of suicides by means of a firearm. As compared with the general population, handgun purchasers remained at increased risk for suicide by firearm over the study period of up to six years, and the excess risk among women in this cohort (standardized mortality ratio, 15.50) remained greater than that among men (standardized mortality ratio, 3.23). The risk of death by homicide with a firearm was elevated among women (standardized mortality ratio at one year, 2.20; at six years, 2.01) but low among men (standardized mortality ratio at one year, 0.84; at six years, 0.79).

Conclusions The purchase of a handgun is associated with a substantial increase in the risk of suicide by firearm and by any method. The increase in the risk of suicide by firearm is apparent within a week after the purchase of a handgun and persists for at least six years. (N Engl J Med 1999;341:1583-9.)

HANDGUN ownership is common in the United States; 16 to 19 percent of the population (26 to 30 percent of men and 7 to 8 percent of women) own a handgun.[1-3] Handguns are acquired more frequently for self-defense than for all other reasons combined.[3] The wisdom of keeping a firearm for protection remains a subject of active debate. Estimates of the frequency with which firearms are used for self-defense range from fewer than 100,000 to 2.5 million instances per year.[4,5] Defensive use of firearms is not rare; the true frequency is probably between 200,000 and 500,000 instances annually.[6]

Nevertheless, access to handguns may actually increase the risk of violent death. The presence of a handgun in the home has been associated with an increased risk of suicide by means of a firearm among adults in general,[7,8] women,[9] and adolescents[10] and has also been associated with an increased risk of homicide.[8,9,11] These data were gathered in case–control studies that were geographically limited. Only one study related the risk of death to personal ownership of handguns.[8] Another case–control study, conducted in New Zealand, where handgun ownership is tightly regulated, found no association between access to firearms and the overall risk of suicide among men.[12]

We report the results of a large, population-based cohort study of the risk of death among persons who have recently purchased a handgun. Our study population comprised the 238,292 persons who purchased handguns from licensed firearm dealers in California in 1991. We compared the mortality in this group with that in the general adult population of California from 1991 through 1996 to determine whether recent purchasers of handguns were at increased risk for death by suicide or homicide, whether by means of a firearm or another method, or were at increased risk for death by other causes.

METHODS

A roster of all persons who purchased handguns from licensed firearm dealers in California in 1991 was provided by the California

From the Violence Prevention Research Program, University of California, Davis. Address reprint requests to Dr. Wintemute at the Violence Prevention Research Program, University of California, Davis, Medical Center, 2315 Stockton Blvd., Sacramento, CA 95817.

Department of Justice. Records included each purchaser's full name, date of birth, address, and date of application for handgun purchase.

California law required completion of an application for handgun purchase, followed by a 15-day waiting period, during which time criminal records were searched for offenses disqualifying the applicant from purchase and a search was conducted for records of mental illness or incapacity as determined by a court. Felons, persons under 21 years of age, and certain others are prohibited from purchasing handguns under long-standing federal and state statutes. A 1991 California law also prohibited persons with convictions for common violent misdemeanors (such as simple assault and brandishing a firearm) from purchasing firearms.

Information on deaths from 1991 through 1996 was obtained from the state's automated mortality file (the Death Statistical Master File). Tentative matches between handgun purchasers and persons listed in the mortality file were made according to last name and date of birth. Data with respect to other variables were then compared to confirm a tentative match.

The sex of handgun purchasers was not supplied by the California Department of Justice but was determined for 98.5 percent of handgun purchasers by comparing their names with sex-specific frequency tabulations of first and middle names for persons who died in California from 1989 through 1996 (derived from the mortality file) or who were born in the United States or Canada in 1994 or 1995.[13] Data on race or ethnic background were not available.

The observation period with respect to mortality among handgun purchasers began 15 days after the date of the purchase application (the first day after the required waiting period, referred to as the day of purchase for purposes of this study) and ended on December 31, 1996. Results were calculated for the first year after handgun purchase and for the entire period of observation. Since purchases occurred throughout 1991, first-year results were determined by making comparisons with average annual statewide mortality rates for 1991 and 1992 combined.

The risk of death was calculated in terms of the standardized mortality ratios, with adjustment for age, sex, or both, with the general adult population of the state as the reference group. Mortality rates for the general population were calculated by dividing the average annual number of deaths during a given period by the population at the midpoint of that period, as estimated by extrapolation from the 1990 census[14] to the projected population of the state in 2000.[15] Since we examined data for an entire population, confidence intervals were not calculated.

Crude rates of suicide by means of firearms among handgun purchasers were calculated as the number of deaths by this means during a given period, divided by the number of person-years at risk during that period; rates for periods of less than one year were annualized. For comparison, rates for the adult population of the state were calculated as described above, with adjustment for age and sex.

RESULTS

As compared with the general adult population, the 238,292 purchasers of handguns in California in 1991 included a far greater proportion of men (Table 1). Nearly half (49.2 percent) of the handgun purchasers (but only 36.4 percent of the state population) were 34 years old or younger; in contrast, just 3.5 percent of handgun purchasers (but 15.0 percent of the state population) were 65 years old or older.

Suicide by any method was the leading cause of death among handgun purchasers in the first year after handgun purchase; it accounted for 24.5 percent of all deaths in this cohort (Table 2). Suicide by means of a firearm (188 of 857 deaths) ranked second among all causes of death, after heart disease (207 deaths) and ahead of cancer (160 deaths). Among all adults in California in 1991 and 1992, suicide ranked ninth among all causes of death and accounted for 1.7 percent of all deaths. There were, on average, 1822 suicides by firearms annually in California during 1991 and 1992, of which 10.3 percent were committed by persons who had purchased handguns in 1991. The percentage of all suicides that were committed with firearms and the percentage of all deaths that were suicides, whether committed with firearms

TABLE 1. DEMOGRAPHIC CHARACTERISTICS OF THE 238,292 PERSONS WHO PURCHASED HANDGUNS IN CALIFORNIA IN 1991 AND OF ALL ADULTS IN CALIFORNIA IN 1991.*

CHARACTERISTIC	HANDGUN PURCHASERS	ADULTS IN CALIFORNIA
	percent	
Sex		
Male	88.0	49.1
Female	12.0	50.9
Age (yr)		
21–24	15.8	9.5
25–34	33.4	26.9
35–44	24.9	22.9
45–54	15.2	14.9
55–64	7.1	10.9
65–74	2.9	8.9
≥75	0.6	6.1

*Because of rounding, percentages do not always sum to 100.

TABLE 2. ONE-YEAR MORTALITY FROM SUICIDE AMONG PERSONS WHO PURCHASED HANDGUNS IN CALIFORNIA IN 1991 AS COMPARED WITH THE AVERAGE ANNUAL MORTALITY FROM SUICIDE AMONG ALL ADULTS IN CALIFORNIA IN 1991 AND 1992.*

VARIABLE	HANDGUN PURCHASERS	ADULTS IN CALIFORNIA
	percent (no./total no.)	
Suicides by firearm (in relation to all suicides)		
Men	91.1 (164/180)	58.7 (1577/2686)
Women	80.0 (24/30)	29.7 (245/826)
Total	89.5 (188/210)	51.9 (1822/3512)
Suicides by firearm (in relation to all deaths)		
Men	21.0 (164/780)	1.4 (1577/109,432)
Women	31.2 (24/77)	0.2 (245/99,187)
Total	21.9 (188/857)	0.9 (1822/208,619)
Suicides (in relation to all deaths)		
Men	23.1 (180/780)	2.5 (2686/109,432)
Women	39.0 (30/77)	0.8 (826/99,187)
Total	24.5 (210/857)	1.7 (3512/208,619)

*Since handgun purchases occurred throughout 1991, first-year comparisons were made to average annual statewide mortality for 1991 and 1992 combined.

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or by any method, were substantially higher among persons who had recently purchased a handgun than in the adult population of the state (Table 2).

Suicide by means of a firearm accounted for 31.2 percent of all deaths during the first year among women who purchased handguns, as compared with only 0.2 percent of all deaths among all women in California in 1991 and 1992. Women 21 to 44 years old made up 75.4 percent of all women who purchased handguns. Among these younger women, more than half of those who died during the first year (51.9 percent) had committed suicide, and 37.0 percent had committed suicide with use of a firearm. Among all women 21 to 44 years old in California in 1991 and 1992, 6.5 percent of those who died had committed suicide, and 2.8 percent had committed suicide with a firearm.

Information about the type of firearm was available for 116 (61.7 percent) of all suicides by firearm among persons who had purchased handguns within the preceding year; handguns had been used in 114 (98.3 percent) of these suicides. The type of firearm was available for 2401 (65.9 percent) of all 3643 suicides by firearm among adults in California in 1991 and 1992; of these suicides, 1750 (72.9 percent) involved handguns.

After adjustment for age and sex, handgun purchasers, as compared with the general adult population during the same period, were at substantially greater risk for suicide in the first year after a handgun purchase (standardized mortality ratio, 4.31), and the increase was attributable entirely to the substantial excess mortality from suicide by firearm (standardized mortality ratio, 7.12) (Table 3). Women who purchased handguns were at particularly high risk for suicide with a firearm (standardized mortality ratio, 38.71). The excess risk of suicide by any method and of suicide by firearm declined slightly for all purchasers until the age of 44, rose thereafter, and was highest for those 75 years old or older.

The rate of suicide by firearm among handgun purchasers was greatest immediately after the purchase and declined thereafter (Fig. 1). Two purchasers committed suicide by means of a firearm during the 15-day waiting period, before the observation period began, and 48 did so during the first 2 weeks after the waiting period ended. The rate for the first week after purchase was 644 per 100,000 person-years, 57 times as high as the adjusted statewide rate (11.3 per 100,000 persons per year). Of all handgun purchasers who committed suicide by firearm during the six-year observation period, 25.0 percent of women and 13.7 percent of men did so within a month after buying their handguns.

Forty-two purchasers of a handgun were murdered in the first year after their purchase; firearms were involved in 40 (95 percent) of these cases. Homicide by means of a firearm accounted for 4.7 percent of all deaths in this cohort. In the state as a whole during 1991 and 1992, firearms were involved in 70.5 percent of homicides, and homicide by firearm accounted for 1.2 percent of all deaths. After adjustment for age, homicide by firearm accounted for fewer deaths than expected among male handgun purchasers (standardized mortality ratio, 0.84) but more deaths than expected among women (standardized mortality ratio, 2.20) (Table 3).

TABLE 3. STANDARDIZED MORTALITY RATIOS FOR SUICIDE AND HOMICIDE AMONG HANDGUN PURCHASERS IN THE FIRST YEAR AFTER HANDGUN PURCHASE IN 1991, AS COMPARED WITH AVERAGE ANNUAL MORTALITY FROM SUICIDE AND HOMICIDE AMONG ALL ADULTS IN CALIFORNIA IN 1991 AND 1992.*

CHARACTERISTIC	SUICIDE			HOMICIDE		
	ALL METHODS	FIREARMS	OTHER METHODS	ALL METHODS	FIREARMS	OTHER METHODS
Total†	4.31	7.12	0.99	0.70	0.87	0.14
Sex‡						
Male	3.85	6.36	0.76	0.66	0.84	0.07
Female	16.13	38.71	4.84	1.83	2.20	1.41
Age (yr)§						
21–24	3.98	6.16	0.84	0.70	0.81	0.00
25–34	3.76	6.58	0.81	0.65	0.83	0.00
35–44	3.45	5.98	1.11	0.42	0.62	0.00
45–54	4.21	6.82	1.09	0.87	1.08	0.55
55–64	5.07	7.84	0.63	2.19	2.60	1.67
65–74	7.76	9.36	3.28	4.76	10.53	0.00
≥75	15.00	20.83	0.00	0.00	0.00	0.00

*Since handgun purchases occurred throughout 1991, first-year comparisons were made to average annual statewide mortality for 1991 and 1992 combined.

†Values have been adjusted for age and sex.

‡Values have been adjusted for age.

§Values have been adjusted for sex.

Among men who purchased a handgun, there were fewer deaths than expected from heart disease (standardized mortality ratio, 0.78), cancer (0.67), unintentional injury (0.67), and all causes (0.73) in the first year after the purchase of a handgun. Mortality from all causes among women was greater than expected (standardized mortality ratio, 1.09), though there were fewer deaths than expected from heart disease (standardized mortality ratio, 0.78), cancer (0.47), and unintentional injury (0.46). For women 21 to 44 years of age, the standardized mortality ratio for death from all causes was 1.53. In both cases, the entire increase in the risk of death from all causes could be accounted for by the excess number of deaths from suicide by firearm.

The rate of suicide by firearm among handgun purchasers remained greater than the rate in the general population throughout follow-up (Fig. 2). Standardized mortality ratios for suicide by all methods and for suicide by firearm were lower than those for the first year after purchase but remained high; those for

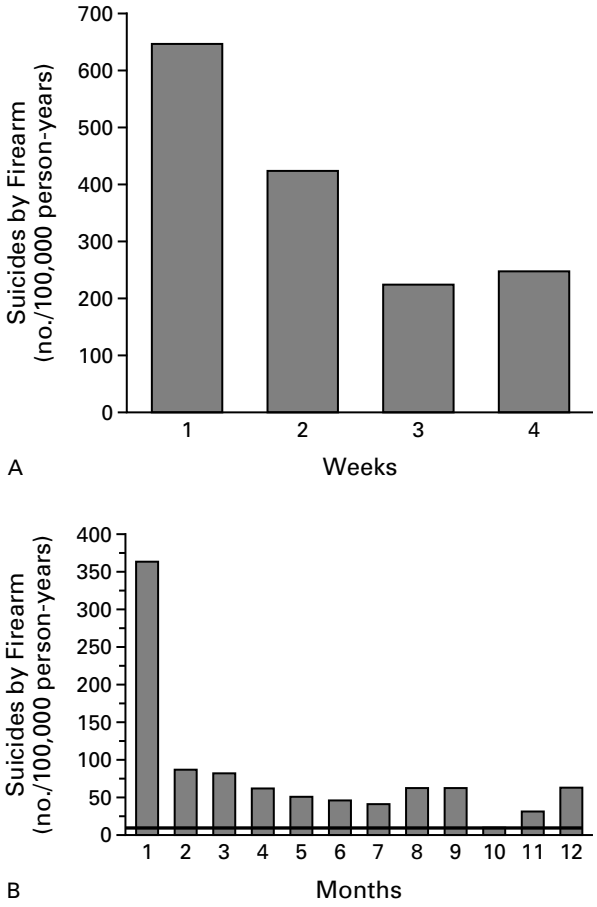

Figure 1. Rates of Suicide by Firearm in the First Four Weeks (Panel A) and the First Year (Panel B) after Purchase among Persons Who Purchased Handguns in California in 1991.

The horizontal line in Panel B indicates the age- and sex-adjusted average annual rate of suicide by firearm in California in 1991 and 1992 (11.3 per 100,000 persons per year).

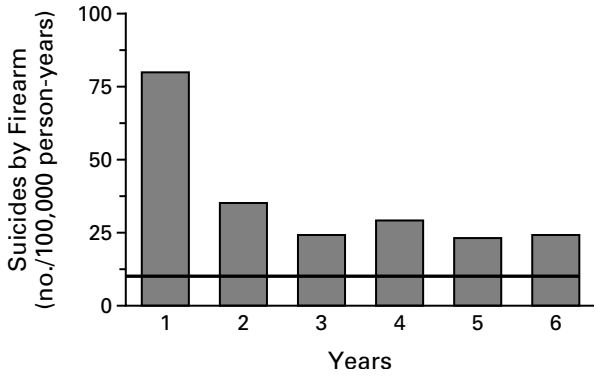

Figure 2. Rates of Suicide by Firearm during the Six Years after Purchase among Persons Who Purchased Handguns in California in 1991.

The horizontal line indicates the age- and sex-adjusted average annual rate of suicide by firearm in California in 1991 through 1996 (10.7 per 100,000 persons per year).

TABLE 4. STANDARDIZED MORTALITY RATIOS FOR SUICIDE AND HOMICIDE AMONG HANDGUN PURCHASERS DURING UP TO SIX YEARS' OBSERVATION AFTER PURCHASE IN 1991 (1991 THROUGH 1996), AS COMPARED WITH AVERAGE MORTALITY FROM SUICIDE AND HOMICIDE AMONG ALL ADULTS IN CALIFORNIA IN 1991 THROUGH 1996.

CHARACTERISTIC	SUICIDE			HOMICIDE		
	ALL METHODS	FIREARMS	OTHER METHODS	ALL METHODS	FIREARMS	OTHER METHODS
Total*	2.16	3.50	0.66	0.67	0.81	0.22
Sex†						
Male	1.98	3.23	0.56	0.64	0.79	0.18
Female	6.83	15.50	2.54	1.55	2.01	0.97
Age (yr)‡						
21–24	2.53	3.97	0.67	0.68	0.78	0.00
25–34	1.69	2.75	0.66	0.60	0.70	0.20
35–44	1.89	3.28	0.73	0.62	0.80	0.22
45–54	2.01	3.34	0.54	0.88	1.22	0.32
55–64	2.71	4.00	0.47	1.10	1.70	0.29
65–74	3.70	4.58	1.32	1.68	2.70	0.78
≥75	5.49	7.33	0.51	0.00	0.00	0.00

*Values have been adjusted for age and sex.

†Values have been adjusted for age.

‡Values have been adjusted for sex.

homicide were little changed (Table 4). Women who purchased a handgun remained at high risk for both suicide by means of a firearm (standardized mortality ratio, 15.50) and death by homicide with a firearm (standardized mortality ratio, 2.01).

Men remained at decreased risk of death from causes other than suicide or homicide and from all causes combined (standardized mortality ratio, 0.69). Mortality from all causes was no longer increased for women overall (standardized mortality ratio, 0.94), but it remained greater than expected for women 21 to 44 years old (standardized mortality ratio, 1.43); 71.4 percent of this increase was attributable to excess deaths from suicide and homicide, and 49.6 percent was attributable specifically to suicide by firearm.

DISCUSSION

The purchase of a handgun is associated with substantial changes in the risk of violent death. Among people who purchased a handgun in California in 1991, suicide was the leading cause of death in the first year after the purchase; suicide specifically with a firearm ranked second, after heart disease. The rate of suicide by firearm among handgun purchasers during the first week in which they could have had possession of their handguns, at 644 per 100,000 person-years, was similar to rates of suicide by all methods combined among male veterans who had been hospitalized for affective disorders (695 per 100,000 per-

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sons per year) or schizophrenia (456 per 100,000 persons per year).[16]

The increased risk of death associated with the purchase of a handgun resulted specifically from an increased risk of violent death; there were fewer deaths than expected from other causes among both men and women who purchased handguns. This finding is most likely due to an affluent-gun-buyer effect. The prevalence of handgun ownership rises with socioeconomic status,[3] and increasing socioeconomic status is associated with a lower risk of death from most causes.[17] Persons who in any year spend as much as $600 to purchase handguns are even more likely than other handgun owners to be of higher socioeconomic status than the general population. The risk of suicide generally decreases as socioeconomic status increases, however,[18-20] suggesting that adjustment for socioeconomic status might reveal the increase in the risk of suicide after a handgun purchase to be even larger than we report here.

Two distinct explanations may be proposed for the increased risk of suicide by firearm among recent purchasers of handguns. The near absence of suicides by firearm during the waiting period and the marked increase in the first month after the end of the waiting period suggest that some purchasers owned no other firearms and bought handguns with the intention of killing themselves. Most suicides by firearm occurred after a longer period of ownership, however. In these cases, preexisting access to a handgun may have added to other newly arising risk factors. This possibility would be consistent with the finding that fewer than 10 percent of persons who committed or attempted suicide with a firearm acquired the firearm for that purpose.[21-23]

Some suicides that occurred soon after purchase may have been planned by persons with terminal illnesses so as to avoid further suffering. Our data suggest that this circumstance was not common, however. If it were, some persons who initiated such plans would probably not have completed them, and an increase in early deaths from cancer and heart disease, which we did not observe, would have resulted. On the contrary, studies of survivors suggest that suicide by means of a firearm usually occurs impulsively; alcohol use and conflict with an intimate partner are often involved.[21,23,24]

Our finding that the risk of death from homicide was lower among male purchasers of handguns than among men in the general population appears to conflict with findings in previous studies.[8,11] Differences in study populations may be responsible. The previous studies were based on current ownership of firearms, whereas we focused on the recent legal purchase of handguns. The presumably high socioeconomic status of our study population relative to that of the general population would lessen the risk of homicide[25,26]; the previous studies sought to minimize differences in socioeconomic status. The handgun purchasers in our cohort also passed a background check; none had a conviction for any felony or violent misdemeanor or were known to have been judged mentally ill or to be addicted to controlled substances. The absence of such potential risk factors for death by homicide means that our estimates may be subject to a "good boy" bias.[27] Finally, in the previous studies, the risk of death by homicide for persons in households with firearms was compared with the risk for persons in households without firearms. We compared this risk among recent purchasers of handguns with that in a general population in which the prevalence of handgun ownership may have been 25 percent after adjustment for sex.[2,3] If any access to handguns increases the risk of death by homicide,[8,11] then our estimate of the relative risk of death by homicide among recent handgun purchasers is artifactually low.

The findings for women are striking and suggest an additional, sex-specific link between handgun purchase and violent death. Women are at greater risk for death by homicide committed by an intimate partner with a firearm than by a stranger with all methods combined.[28] Homicide committed by an intimate partner accounts for the increased risk among women of death by homicide when there is a firearm in the home.[9,11] It may be that many women purchase handguns for protection against violence from an intimate partner and that these handguns are used by the partners against them or are at any rate not protective. Women in abusive relationships are also at increased risk for suicide.[9,21,29]

How might suicide among purchasers of handguns be prevented? Focusing efforts on a population at high risk does not substantially reduce rates of suicide.[30-32] As noted in one report, "there is no single, readily identifiable, high-risk population that constitutes a sizeable proportion of overall suicides and yet represents a small, easily targeted group."[30] In our study, handgun purchasers accounted for only 10.3 percent of those who committed suicide by firearm statewide in the year after their handgun purchases and accounted for a smaller proportion thereafter. A screening test for handgun purchasers with a sensitivity and specificity of 99 percent for identifying the 188 persons who committed suicide by means of a firearm within a year would have had a positive predictive value of only 7.2 percent, generating 12.8 false positive results for every true positive.

Reducing access to firearms within an entire population can prevent suicides by firearm.[30-37] Rates of suicide by firearm correlate very closely, both geographically and temporally, with measures of the availability of firearms.[33,38-40] In cross-sectional studies, stricter controls on access to firearms have been found to be associated with lower rates of suicide by firearm.[33,40,41] In New York City, where handgun own-

ership has been strictly regulated since the early 20th century, rates of suicide by firearm are very low; rates of suicide by other methods vary directly with the availability of those methods.[42]

More direct evidence comes from time-series studies. A near-ban on the sale and possession of handguns in Washington, D.C., was associated with a rapid and specific 25 percent decrease in the rate of suicide by firearm.[43] Substantial decreases in suicides by firearm were reported in Queensland[34] and Tasmania,[36] Australia, and in Ontario, Canada,[35] after waiting periods of 21 to 28 days and other restrictions on access to firearms were adopted, although in Queensland there was an increase in suicide by other methods. Tasmania's 21-day waiting period resulted in a 51 percent decrease in the proportion of suicides involving firearms that were committed with recently acquired firearms.[36]

Our findings are subject to several limitations. Results may be different in states where demographic features of the population, the base-line prevalence of firearm ownership, or public policy differs from that in California. New York and New Jersey enforce long waiting periods for the purchase of a handgun, and the very high rates of suicide that we observed in the period immediately after purchase may not occur in those states. Conversely, rates of suicide by firearm soon after purchase may be still higher in the 23 states that, because they have no stronger state law, are subject to the Brady Handgun Violence Prevention Act, where waiting periods for most purchases of firearms from licensed dealers were replaced by the National Instant Check System in November 1998.[44]

Policy differences at the state level also affect eligibility to purchase firearms. Few states deny firearms to persons with previous convictions for violent misdemeanors. Since a history of violence or aggression is a risk factor for both suicide[7,9,18,19,45] and homicide,[9,11,46] the risk of violent death associated with recent purchase of a handgun may be higher in most states than we observed in California.

It should be emphasized that we did not compare the risk of death between people who owned firearms and people who did not. If firearm ownership is a risk factor for violent death,[7-9,11] we have underestimated the risk of both suicide and homicide associated with the purchase of a handgun by a person who did not previously own a firearm.

We cannot determine the extent to which increases or decreases in the risk of violent death are attributable specifically to the purchase of a handgun, since we lack information about other risk factors. In addition to a history of violence, alcohol and drug abuse and psychiatric disorders are risk factors for both suicide and homicide.[16,46-48] An increased risk of suicide by firearm might be due to an increased prevalence of these risk factors among handgun purchasers, and not due to the handgun purchase itself. On the other hand, such risk factors may be less common among persons who have recently passed a background check than they are in the general population; this difference might account for the lower risk of death by homicide among men who have recently purchased a handgun than among men in the general population.

We do not know whether the handguns purchased by persons in our study cohort were actually involved in the deaths we analyzed. However, the percentages of firearm-related suicides and homicides that involved handguns were much higher among handgun purchasers than in the state as a whole.

In 1997, suicide by firearm accounted for 54.2 percent of all deaths by firearm nationwide; firearms were used in 62.0 percent of suicides among men and 39.3 percent among women.[49] Suicide by firearm may be most effectively prevented by reducing overall access to firearms. (Unfortunately, however, reduction in access to the means to commit suicide is not among the interventions included in the 1999 *Surgeon General's Call to Action to Prevent Suicide*.[50]) Rates of death by both suicide and homicide among handgun purchasers might also be reduced by prohibiting those with risk factors such as a history of violence or alcohol and drug abuse from purchasing handguns.

A substantial percentage of persons who commit suicide seek medical attention shortly before death.[30] Clinicians need to identify persons who are at acute risk for suicide and to intervene appropriately.[30,51] A patient's declaration of intent to purchase a handgun may also be an indication to determine whether other risk factors for violent death are present.

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EXHIBIT 19

ORIGINAL ARTICLE

Association between handgun purchase and mortality from firearm injury

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Objective: To determine the association between mortality from violent or firearm related injury and previous handgun purchase.
Methods: Case-control study of 213 466 Californians ages 21 and older who died in 1998; cases were the 4728 violent or firearm related injury deaths, with subsets by specific cause and means of death, and controls were the 208 738 non-injury deaths. The exposure of interest was the purchase of a handgun during 1996–98. The main outcome measure was the odds ratio for handgun purchase, adjusted for age, sex, race, education, and marital status.
Results: Handgun purchase was more common among persons dying from suicide (odds ratio (OR) 6.8; 95% confidence interval (CI) 5.7 to 8.1) or homicide (OR 2.4, 95% CI 1.6 to 3.7), and particularly among those dying from gun suicide (OR 12.5; 95% CI 10.4 to 15.0) or gun homicide (OR 3.3; 95% CI 2.1 to 5.3), than among controls. No such differences were seen for non-gun suicide or homicide. Among women, those dying from gun suicide were much more likely than controls to have purchased a handgun (OR 109.8; 95% CI 61.6 to 195.7). Handgun purchasers accounted for less than 1% of the study population but 2.4% of gun homicides, 14.2% of gun suicides, and 16.7% of unintentional gun deaths. Gun suicide made up 18.9% of deaths among purchasers but only 0.6% of deaths among non-purchasers.
Conclusion: Among adults who died in California in 1998, those dying from violence were more likely than those dying from non-injury causes to have purchased a handgun.

Although firearm mortality rates in the United States have decreased since 1993, firearms accounted for 28 663 deaths in 2000 and ranked 11th among all causes of death.[1] Gun homicide rates have fallen dramatically in the last decade,[2] but gun suicide rates have seen little change. In 2000 there were 16 586 gun suicides among persons age 21 and older, outnumbering the 10 801 gun homicides by 54%.[1]

Case-control studies find that gun availability increases risk of homicide,[3–6] while one cohort study finds this to be true for women, but not for men.[7] With one exception,[8] studies of suicide have consistently shown that the risk of suicide increases when a firearm is available.[3 5–7 9] The majority of these studies, however, inferred a passive exposure to a handgun (for example, a handgun present in the home). Little is known about the relationship between handgun purchase itself—the conscious decision to undergo a sustained close exposure to firearms—and subsequent risk of violent or firearm related mortality.

In a cohort study of handgun purchasers in California in 1991, the purchase of a handgun was associated with a substantial increase in risk of firearm suicide that was present within a week of purchase and persisted for at least six years.[7] The continuing decline in overall rates of firearm related death since that study was conducted may have affected the association between handgun purchase and mortality. In addition, that earlier study left several important questions unanswered: Among those who die from gun violence, particularly suicide, what proportion have recently purchased a handgun? Are very recent handgun purchasers most likely to die from violence, especially firearm related violence?

To answer these questions, we performed a case-control study of all people age 21 and older who died in California in 1998. Our hypothesis was that people dying from violence, and especially firearm related violence, were more likely to have bought a handgun in the three years before their death than those who died from non-injury causes. We also hypothesized that those who died from violence were much more likely to have bought a handgun very recently—within one year of death—than were those who died from non-injury causes. We also compared the prevalence and ranking of deaths from violence and firearm related injury among handgun purchasers and non-purchasers.

METHODS

California's automated Death Statistical Master File contains information on all deaths that occur in the state. We used this file to identify all persons age 21 and older who died in California in 1998 (n=221 317). The file provided information on sex, age, race, marital status, years of education, date of birth, date of death, and cause of death (*International Classification of Diseases*, 9th revision, codes including four digit E codes).[10] We used California's state handgun purchase data from 1996–98 to identify handgun purchasers. The handgun purchase data contain records of all legal handgun purchases made from licensed California firearm retailers. Handgun sales between private parties would be included in these data if they were conducted legally, as California law requires all such sales to go through a licensed retailer. Any private sales or transfers not going through a licensed retailer would not appear in the purchase data.

The mortality file was joined with the purchase data by matching on last name and date of birth. Apparent matches were manually reviewed and verified using additional data such as sex, place of birth, and middle name. Subjects in the mortality file with no match in the purchase data were considered not to have purchased a handgun within three years of death.

Abbreviations: CI, confidence interval; OR, odds ratio

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We used a case-control study design, rather than a proportional mortality design, to enhance the validity of the study.[11 12] As recommended by Rothman and Greenland[11] and Miettinen and Wang,[12] cases in such a design are persons who died from the causes of death that are being investigated. In selecting controls, it is then important to exclude persons for whose causes of death an association with the exposure of interest is "known, suspected, or merely plausible" (Rothman and Greenland, p 77[11]).

In applying that principle to selecting controls for this study, we noted that firearm ownership generally,[13] the ownership of semiautomatic and automatic firearms specifically,[14] and carrying a firearm on one's person[15] are all associated with abusive consumption of alcohol. As alcohol abuse is one of the most important risk factors for death from unintentional injury, we considered it likely that handgun purchase is associated, though perhaps indirectly, with risk for an unintentional injury death. We therefore excluded from our control population persons who died from unintentional injuries, such as motor vehicle crashes and falls (n=7617). We also excluded persons who died from injuries of undetermined intent (n=185), legal intervention (n=47), and injuries resulting from operations of war (n=2).

The main outcome measure for the study is the exposure odds ratio: the odds of having purchased a handgun before death among cases relative to controls. We used logistic regression to calculate odds ratios and 95% confidence intervals, which we adjusted for age, sex, race, education, and marital status. Age was treated as a categorical variable (table 1). We developed multiple models to compare subsets of our case population with the control group. These subsets included persons who died of any intentional violence, homicide, suicide, and unintentional firearm deaths. We stratified subsets related to violence by whether or not deaths were firearm related. The control population remained constant across all comparisons.

RESULTS

A total of 213 466 people age 21 and older who died in California in 1998 made up our study population: 4728 cases died from a violent or firearm related injury (2.2% of the study population), and 208 738 controls died from non-injury causes (97.8% of the study population) (table 1). The 1162 persons (0.5% of the study population) who were known to have purchased a handgun between 1996 and 1998 were considered to have sustained the exposure of interest.

Men accounted for 79.3% of cases but only 48.8% of controls (table 1). Those who died from violent or firearm related injury were younger (mean age 44.6) than those who died from non-injury causes (mean age 74.7). There were much higher proportions of Hispanics and black people and a lower proportion of white people among cases compared with controls. There was little difference in educational history between the two groups, but those dying from violent or firearm related injury were more likely to be single or divorced, and less likely to be married or widowed, than were those dying from non-injury causes.

Persons who died from intentional violence were more likely than those who died from non-injury causes to have purchased a handgun (odds ratio (OR) 5.7; 95% confidence interval (CI) 4.8 to 6.8) (table 2). This was also true for the subsets of cases dying from suicide (OR 6.8; 95% CI 5.7 to 8.1) and homicide (OR 2.4; 95% CI 1.6 to 3.7), and particularly for those dying from gun suicide (OR 12.5; 95% CI 10.4 to 15.0) or gun homicide (OR 3.3; 95% CI 2.1 to 5.3). No such difference was seen for cases dying from non-gun suicide or homicide.

Very recent handgun purchase, defined as purchase within one year of death, was strongly associated with violent or firearm related injury death (table 3). This was again the case for both suicide (OR 12.5; 95% CI 10.0 to 15.6) and homicide (OR 3.9; 95% CI 2.2 to 6.8), and particularly gun suicide (OR 22.7; 95% CI 18.2 to 28.4) and gun homicide (OR 5.8; 95% CI 3.1 to 10.8).

Table 1 Characteristics of Californians age 21 and older who died in 1998; results are number (%)

Characteristics	Violent injury death (n=4728)	Non-injury death (n=208738)
Purchaser*		
Yes	275 (5.8)	887 (0.4)
No	4453 (94.2)	207 851 (99.6)
Recent purchaser†		
Yes	200 (4.2)	369 (0.2)
No	4528 (95.8)	208 369 (99.8)
Sex		
Male	3748 (79.3)	101 864 (48.8)
Female	980 (20.7)	106 874 (51.2)
Age		
21–24	553 (11.7)	410 (0.2)
25–34	1113 (23.5)	2311 (1.1)
35–44	1097 (23.2)	6800 (3.3)
45–54	744 (15.7)	13 473 (6.5)
55–64	417 (8.8)	21 394 (10.2)
65–74	340 (7.2)	42 075 (20.2)
≥75	464 (9.8)	122 275 (58.6)
Race		
White	2788 (59.0)	158 063 (75.7)
Hispanic	1003 (21.2)	21 803 (10.4)
Black	578 (12.2)	15 563 (7.5)
Asian	283 (6.0)	11 483 (5.5)
Other, unknown	76 (1.6)	1826 (0.9)
Years of education		
<12	1079 (22.8)	53 946 (25.8)
12	1792 (37.9)	79 490 (38.1)
13–15	884 (18.7)	35 259 (16.9)
16	503 (10.6)	20 689 (9.9)
≥17	314 (6.6)	12 729 (6.1)
Unknown	156 (3.3)	6625 (3.2)
Marital status		
Married	1705 (36.1)	86 231 (41.3)
Single	1718 (36.3)	16 326 (7.8)
Divorced	833 (17.6)	25 976 (12.4)
Widowed	381 (8.1)	78 623 (37.7)
Unknown	91 (1.9)	1582 (0.8)

*Purchased a handgun between 1996 and 1998.
†Purchased a handgun within one year of death.

The association between handgun purchase and violent death was stronger among women than in the study population as a whole (table 4). In particular, women who died from gun suicide were much more likely to have purchased a handgun than women who died from non-injury causes (OR 109.8; 95% CI 61.6 to 195.7). Since 79.3% (3748 of 4728) of the cases were men, odds ratios for men were very similar to those for all cases and are not shown separately.

Almost 22% (252 of 1162) of deaths among handgun purchasers were firearm related. Gun suicide accounted for 18.9% of deaths among handgun purchasers and 0.6% of deaths among non-purchasers. Gun suicide was the third leading cause of death among male handgun purchasers, accounting for 17.5% of all deaths (188 of 1076), but made up only 1.1% of deaths among male non-purchasers (1155 of 104 536). Gun suicide was the leading cause of death for female purchasers and accounted for 37.2% of all deaths in that group (32 of 86), but accounted for only 0.2% of deaths among female non-purchasers (171 of 107 768). Gun suicide was also the leading cause of death among persons who purchased a handgun within one year of death, accounting for 29.3% of all deaths in that population (167 of 569).

Handgun purchasers made up just 0.5% of our study population (1162 of 213 466 persons), but accounted for 5.8% of all violent deaths (275 of 4728), 7.8% of suicides (237 of 3035), and 1.9% of homicides (32 of 1657). Similarly, purchasers accounted for 14.2% of gun suicides (220 of 1546), 2.4% of gun homicides (26 of 1102), and 16.7% of unintentional gun deaths (six of 36). Of all handgun purchasers who died in 1998, 48.9% (569 of 1162) bought a handgun within one year of their deaths.

Table 2 Crude and adjusted odds ratios for handgun purchase within three years of death among Californians age 21 and older who died from selected injury causes in 1998, compared with persons who died from non-injury causes

	No exposed/No unexposed		Odds ratios (95% confidence intervals)		
Cause of death	Cases	Controls	Unadjusted	Adjusted*	p Value
Intentional violence†	269/4423	887/207 851	14.3 (12.4 to 16.4)	5.7 (4.8 to 6.8)	<0.001
Any gun injury	252/2432	887/207 851	24.3 (21.0 to 28.1)	10.2 (8.5 to 12.2)	<0.001
Suicide	237/2798	887/207 851	19.8 (17.1 to 23.0)	6.8 (5.7 to 8.1)	<0.001
Gun suicide	220/1326	887/207 851	38.9 (33.2 to 45.5)	12.5 (10.4 to 15.0)	<0.001
Non-gun suicide	17/1472	887/207 851	2.7 (1.7 to 4.4)	0.9 (0.6 to 1.6)	0.814
Homicide	32/1625	887/207 851	4.6 (3.2 to 6.6)	2.4 (1.6 to 3.7)	<0.001
Gun homicide	26/1076	887/207 851	5.7 (3.8 to 8.4)	3.3 (2.1 to 5.3)	<0.001
Non-gun homicide	6/549	887/207 851	2.6 (1.1 to 5.7)	1.3 (0.6 to 2.9)	0.551
Gun unintentional	6/30	887/207 851	46.9 (19.5 to 112.9)	18.5 (7.0 to 48.6)	<0.001

*Adjusted for age, sex, race, education, and marital status.
†Combines homicide and suicide.

Table 3 Crude and adjusted odds ratios for handgun purchase within one year of death among Californians age 21 and older who died from selected injury causes in 1998, compared with persons who died from non-injury causes

	No exposed/No unexposed		Odds ratios (95% confidence intervals)		
Cause of death	Cases	Controls	Unadjusted	Adjusted*	p Value
Intentional violence†	197/4495	369/208 369	24.7 (20.8 to 29.5)	10.7 (8.6 to 13.4)	<0.001
Any gun injury	185/2499	369/208 369	41.8 (34.9 to 50.1)	19.3 (15.4 to 24.2)	<0.001
Suicide	179/2856	369/208 369	35.4 (29.5 to 42.5)	12.5 (10.0 to 15.6)	<0.001
Gun suicide	167/1379	369/208 369	68.4 (56.5 to 82.7)	22.7 (18.2 to 28.4)	<0.001
Non-gun suicide	12/1477	369/208 369	4.6 (2.6 to 8.2)	1.6 (0.9 to 3.0)	0.130
Homicide	18/1639	369/208 369	6.2 (3.9 to 10.0)	3.9 (2.2 to 6.8)	<0.001
Gun homicide	15/1087	369/208 369	7.8 (4.6 to 13.1)	5.8 (3.1 to 10.8)	<0.001
Non-gun homicide	3/552	369/208 369	3.1 (1.0 to 9.6)	1.8 (0.6 to 5.9)	0.308
Gun unintentional	3/33	369/208 369	51.3 (15.7 to 168.1)	19.6 (5.4 to 70.5)	<0.001

*Adjusted for age, sex, race, education, and marital status.
†Combines homicide and suicide.

Table 4 Crude and adjusted odds ratios for handgun purchase within three years of death among female Californians age 21 and older who died from selected injury causes in 1998, compared with women who died from non-injury causes

	No exposed/No unexposed		Odds ratios (95% confidence intervals)		
Cause of death	Cases	Controls	Unadjusted	Adjusted*	p Value
Intentional violence†	37/942	49/106 825	85.6 (55.6 to 131.9)	26.2 (15.0 to 45.8)	<0.001
Any gun injury	32/323	49/106 825	216.0 (136.5 to 341.7)	73.2 (41.0 to 130.7)	<0.001
Suicide	36/635	49/106 825	123.6 (79.8 to 191.4)	33.9 (19.3 to 59.3)	<0.001
Gun suicide	32/171	49/106 825	408.0 (255.0 to 652.8)	109.8 (61.6 to 195.7)	<0.001
Non-gun suicide	4/464	49/106 825	18.8 (6.8 to 52.3)	4.6 (1.5 to 14.5)	0.009
Homicide	1/307	49/106 825	7.1 (1.0 to 51.6)	2.5 (0.3 to 20.1)	0.400
Gun homicide	0/151	49/106 825	–	–	–
Non-gun homicide	1/156	49/106 825	14.0 (1.9 to 101.8)	4.0 (0.5 to 32.8)	0.195
Gun unintentional	0/1	49/106 825	–	–	–

*Adjusted for age, race, education, and marital status.
†Combines homicide and suicide.

DISCUSSION

Among Californians who died in 1998, those whose deaths resulted from violence or firearm related injury were more likely than those who died from non-injury causes to have purchased a handgun between 1996 and 1998. While this association was strongest among persons dying from suicide, there was no evidence that the purchase of a handgun produced a protective effect against homicide; homicide victims were also more likely to have purchased a handgun than those dying from non-injury causes. Over one fifth of deaths among handgun purchasers, but just 1.1% of deaths among non-purchasers, were from gun related injury—an increase that was attributable almost entirely to an increase in gun suicide. Handgun purchasers constituted just 0.5% of our study population, but they committed 14.2% of gun suicides.

Among women, the association between violent death and handgun purchase was remarkably strong, again due largely to gun suicide. Although the number of female purchasers in our study population was small, these results should not be dismissed. Handgun manufacturers have recently increased the marketing of guns to women by touting the protection handguns may provide them.[16] Our findings show, however, that women who died from violence were more likely, not less, to have purchased a handgun within the three years before death.

For three reasons, our findings probably underestimate the association between violent or firearm related death and prior purchase of a handgun. First, although our non-purchasers had not bought a handgun from a licensed California gun retailer within three years before their deaths, they could have

done so earlier. They could also have recently purchased a handgun from a source other than a licensed retailer without producing a record of the transaction. This has been illegal in California since 1991, but we believe it occurs frequently: perhaps 40% of all transfers of firearms are between private parties,[17 18] but less than 10% of sales records forwarded to the California Department of Justice are for such private party sales (unpublished data on file with the authors). Second, non-purchasers could be passively exposed to guns. Some 35% to 40% of all households in the United States have a gun, and as many as 25% have a handgun.[18–21] Even passive exposure appears to increase the risk of a gun related death and therefore would increase the risk of dying by gun violence in our non-purchasing population.[4–6 9] Our odds ratios are therefore probably lower than would be observed if handgun exposure, whether by personal acquisition or passively, could be measured perfectly.

Third, we are unable to eliminate completely from our control population persons dying from causes of death that are "plausibly" (Rothman and Greenland, p 77[11]) related to our exposure of interest. Alcohol abuse, for which an association with both gun use and unintentional injury death led us to exclude injury deaths from our control group, is also related to death from some forms of cancer and cardiovascular disease and other causes—though the attributable risk is both less in absolute terms and not as predominant as it is for unintentional injury. Handgun purchase may be indirectly associated with many causes of death if it is associated with other common behavioral risk factors; including these causes of death in our control population is another source of conservative bias in our estimates of association.

Our results are subject to other limitations. Since all members of our study population died, we could not estimate the actual risk of dying from gun related causes. We do not know if the gun deaths of the purchasers in our study population involved the handguns they bought between 1996 and 1998, nor do we know if any purchasers resold their guns before death and were no longer exposed. The study population does not include persons less than 21 years of age, because they are prohibited from purchasing a handgun. We measured the effect a handgun purchase had on causes of death among purchasers who died in 1998, not on other members of their households.

We also did not have data for attributes such as mental illness, isolation, alcohol and other drug abuse, exposure to violence, and a prior criminal history, that earlier studies have found to have a relationship, independent of household gun ownership, to risk for homicide or suicide.[4–6] It is important to note that those studies used live controls. In this study, where all subjects died and case-control assignment was made on cause of death, not vital status, the relationship between such attributes and the primary exposure and outcome of interest could be quite different.

Because our data allowed us to measure the effects of an individual's decision to assume the risks associated with handgun ownership, the results of this study differ from those of past case-control studies. With one exception,[3] previous studies only measured the risk of a passive exposure to a handgun present in the household.[4–6 9] In addition, this study focused on recent exposure to a handgun, whereas exposure in all other studies but one[3] was of unknown duration.

Our findings document a very strong association between handgun purchase and subsequent gun suicide. There are few evidence based solutions to the problem of suicide. It would, for example, be difficult to screen potential gun buyers for suicide risk factors.[7] General restrictions on handgun ownership, on the other hand, have been found to reduce gun suicide rates without an increase in suicide by other means.[22] Since those who die from gun suicide are likely to have been recent handgun purchasers, it is possible that an extended waiting period could have a "cooling off " effect.[23–25] It is also possible, however, that this "cooling off " period would only delay suicides, not prevent them. Temporary prohibitions on gun purchase by persons who have been involuntarily hospitalized for mental health reasons, a policy that was recently adopted in California, may be of some benefit.

Key points

- Among adults dying in California in 1998, a handgun purchase during 1996–98 was more common among persons dying from suicide (OR 6.8), gun suicide (OR 12.5), homicide (OR 2.4), and gun homicide (OR 3.3) than among those dying from non-injury causes.
- Among women, handgun purchase was much more common among those dying from suicide (OR 33.9) and gun suicide (OR 109.8). Gun suicide accounted for 37.2% of all deaths among women who purchased handguns.
- Persons who bought a handgun during 1996–98 made up 0.5% of those who died in 1998, but accounted for 5.8% of all violent deaths, 2.4% of gun homicides, 14.2% of gun suicides, and 16.7% of unintentional gun deaths.
- Gun suicide accounted for 18.9% of deaths among handgun purchasers and 0.6% of deaths among non-purchasers.

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LACUNAE

Zipper slips suffered in silence

They may be the tip, so to speak, of a very substantial iceberg. The 13 men and boys who have fronted up to Queensland hospitals in the past four years with trouser-zipper injuries to the penis are probably outnumbered many times by those who bear their affliction privately.

Richard Hockey, data analyst at the Queensland Injury Surveillance Unit, reveals that "people probably try to treat themselves first". "The embarrassment factor might put you off", he said.

Mr Hockey said he was surprised to discover that trapped genitals were far and away the leading cause of clothing related injury when he analysed emergency department statistics from 1998 to 2001. It could be a subtropical issue, Mr Hockey said. "Maybe it is seasonal. In the hotter weather, anecdotally, people are going without underpants. Perhaps it is now time to return to button flies".

In total, clothes were implicated in 81 injuries, including finger dislocations from putting on or removing socks, and fractures sustained in falls during that tricky stage when one leg is in the pants and the other is trying to locate the other hole.

Dressing was a highly personal ritual, Mr Hockey said, and one, perhaps, that people did not adapt sufficiently to with their age, mobility, and health. "People keep on doing it the same way, but maybe when they are a bit older can't reach their feet as well" (from the *Sydney Morning Herald*. Contributed by Richard Hockey).

Mike Hayes, *Injury Prevention* deputy editor adds: A similar cause of injury to children showed up several years ago when we undertook work on clothing safety for the UK's Department of Trade and Industry. I would not describe the UK as tropical!

IP

Association between handgun purchase and mortality from firearm injury

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